



Oregon State University
Cascades

OSU-Cascades
1500 SW Chandler Ave.
Bend, Oregon 97702
541-322-3100
OSUcascades.edu

January 28, 2019

U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Re: Oregon State University - Cascades – Application for FY2019 EPA Brownfield Cleanup Grant

Dear EPA Brownfields Cleanup Grant Selection Committee,

Oregon State University is applying for a \$500,000 Brownfield Cleanup grant for the remediation of the former Deschutes County Demolition Landfill to prepare the land for redevelopment as a university campus.

Please find enclosed our application and supporting materials:

Narrative Information Sheet

OSU-Cascades Narrative

Attachment A. Threshold Criteria Response

Attachment B. Documentation of Committed Leveraged Funds

Attachment C. Community Meeting Documentation

Attachment D. Draft Analysis of Brownfields Cleanup Alternatives.

The requested grant funding will expand cleanup of Phase 1 of landfill remediation, expediting the expansion of the OSU-Cascades campus and University Innovation District. Thank you for your consideration.

Sincerely,

Kelly Sparks
Associate Vice President, Finance & Strategic Planning
OSU-Cascades



FY2019 EPA Cleanup Grant Proposal: NARRATIVE INFORMATION SHEET

1. Applicant Identification

The State of Oregon, acting through the Board of Trustees of Oregon State University, is the applicant:

Oregon State University
Office for Sponsored Research and Award Administration
A312 Kerr Administration Building
Corvallis, OR 97331-2140

2. Funding Requested

a. *Grant Type:* Single site cleanup, although the single site is comprised of three contiguous tax lots with separate addresses.

b. *Federal Funds Requested:*

- i. \$500,000
- ii. No cost share waiver is requested.

c. *Contamination:* Hazardous Substances

Originally an abandoned surface mine, from 1972 to 1996 the 72-acre property was used as a landfill for construction and demolition debris, including tires as well as industrial waste (primarily sawdust from area sawmills). Most of the landfill was closed in 1997. Closure of the eastern 23-acre portion of the landfill remains unfinished due to waste pyrolysis (decomposition of organic matter by heating without oxygen), which has created an unstable landfill cover with sinkholes at the ground surface and unsafe working conditions.

No reclamation has been completed, so the landfill contamination still exists on the site. The investigations indicate that the landfill debris, including plywood, molding, sawdust, and wood trimmings likely comprise the majority of fill in two of the three landfill cells. The third cell, which operated during the later years (1990s) includes significant deposits of demolition debris, including razed structures, concrete, and building materials. During landfill sampling in 2008, several hazardous substances were sporadically detected, including arsenic, lead, petroleum products (benzene and polycyclic aromatic hydrocarbons) and tetrachloroethylene. Potentially asbestos-containing material (PACM) was also observed, in line with the era of the demolition

debris placed in the landfill. Recent (July 2016) site investigations indicated that methane exists in the cover soils throughout the landfill.

3. Location: a) Bend, b) Deschutes County, c) Oregon.

4. Property Information: Single 72-acre site, former Deschutes County Construction & Demolition Landfill, comprised of three parcels: 19745 Simpson Avenue, 19795 Simpson Avenue, and 1435 SW Simpson Avenue, Bend, Oregon 97702.

5. Contacts

a. *Project Director*: Steve Pitman, Director of Facilities & Operations, 1500 SW Chandler Ave, Bend, OR 97702, steve.pitman@osucascades.edu, 541.322.2048

b. *Chief Executive*: Rebecca Johnson, Vice President for OSU-Cascades, 1500 SW Chandler Ave, Bend, OR 97702, Becky.Johnson@osucascades.edu, 541.322.3113

6. Population

The 2010 U.S. Census population of Bend, Oregon was 76,639. Per www.census.gov, the 2017 population estimate was 94,520.

7. Other Factors Checklist

Other Factors	Page #
Community population is 10,000 or less. (NO)	
The applicant is, or will assist, a federally recognized Indian tribe or United States territory. (NO)	
The proposed brownfield site(s) is impacted by mine-scarred land.	1
Secured firm leveraging commitment ties directly to the project and will facilitate completion of the project/redevelopment; secured resource is identified in the Narrative and substantiated in the attached documentation.	4
The proposed site(s) is adjacent to a body of water (i.e., the border of the site(s) is contiguous or partially contiguous to the body of water, or would be contiguous or partially contiguous with a body of water but for a street, road, or other public thoroughfare separating them). (NO)	
The proposed site(s) is in a federally designated flood plain. (NO)	
The redevelopment of the proposed cleanup site(s) will facilitate renewable energy from wind, solar, or geothermal energy; or any energy efficiency improvement projects.	3

8. Letter from the State or Tribal Authority

As the applicant is the State of Oregon, no letter is attached per grant instructions.

1. PROJECT DESCRIPTION AND PLANS FOR REVITALIZATION

a. Target Area and Brownfields

i. Background and Description of Target Area

This project benefits two target areas: 1) west Bend neighborhoods surrounding the former Deschutes County Demolition Landfill, and 2) the Tri-County region (Deschutes, Jefferson, Crook Counties) to be served by the new 4-year university.

WEST BEND: The 72-acre landfill is located in west Bend, Oregon, the heart of Central Oregon. Historically, the Bend area was home to the timber and mill industry. In the early 20th century, west Bend was inhabited as a mill community around two lumber mills: Shevlin-Hixon and Brooks-Scanlon. The mills eventually merged, then closed in 1994. The landfill site originated as a pumice mine and was then developed in three distinct areas, operating under a DEQ solid waste permit from 1972 to 1996 to dispose of mill waste, construction and demolition waste, industrial waste, commercial waste, wood waste, brush, tires and concrete rubble. Most of the landfill was closed in 1997. Since that time, the 72 acres have remained fenced, unremediated and underutilized. An adjacent 46 acres, a pumice mine, is also fenced from public use. Meanwhile, Bend's population has increased significantly, causing it to grow up to and around the landfill, leaving a large hole in the pattern of urban growth, lack of transportation connectivity, and leaving a threat to public health and the environment. Closure of the eastern 23-acres of the landfill remains unfinished due to waste pyrolysis, which has created an unstable landfill cover with hot sinkholes and unsafe conditions.

The area directly east of the landfill has historically been largely zoned industrial, however, in recent years, the City recognized the need for this area to be redeveloped and have rezoned much of the area mixed-use. The landfill relates directly to the area's economic, social and environmental issues, as it persists with environmental risks (methane, sinkholes, future soil contamination), perpetuates lack of connectivity across the property and remains undeveloped and underutilized in the heart of an area needing a local 4-year university, affordable housing and economic development.

TRI-COUNTY REGION: Currently, 64% of OSU- Cascades' students are from the Central Oregon tri-county region (Deschutes, Jefferson, Crook Counties). This region was identified as an education desert in 2008, as an area with zero 4-year colleges.¹ This study noted that "place still matters; in fact, the majority - 57.4 percent - of incoming freshmen attending public four-year colleges enroll within 50 miles from their permanent home." OSU-Cascades was selected by the former Oregon State Board of Higher Education to remedy the education desert; remediation of the landfill for campus expansion is imperative for the education and success of the Tri-County Region.

ii. Description of the Brownfield Site(s)

The 72-acre brownfield site is the former Deschutes County Demolition Landfill, composed of three tax lots (181206A000-719, 1812060000-111, 1812060000-110). Originally an abandoned surface mine, from 1972 to 1996 the site was used as a landfill with 3 cells, for construction and demolition debris, including tires and industrial waste (primarily wood waste from mills). While the Solid Waste Permit did not allow the intake of certain materials (e.g., municipal waste, oil), not all loads were inspected, and there were periods of unattended dumping. Samples collected from waste material in the landfill had concentrations of petroleum hydrocarbons, benzene, trichloroethylene, benzo(a)pyrene, arsenic, and lead above the DEQ RBCs for residential receptors. There were two exceedances of soil vapor RBCs for urban residential and occupational direct contact for ethylbenzene and naphthalene and methane above DEQ guidance. As the landfill is unlined and contains constituents of concern, there is a possibility of a release from the Site; however, this is considered applicable to soil, as groundwater appears 150+ feet below the waste material. This controlled recognized environmental condition is currently managed through restricted access to the site, the presence of the cover material, the depth of native soil, the composition of substrate, and depth to groundwater. Additionally, the landfill is managed through compliance with the Solid Waste Permit.

Portions of the landfill were closed in 1997. Closure of the eastern 23-acres (Cell 1) is unfinished due to waste pyrolysis (decomposition of organic matter by heating without oxygen), which has created an unstable cover with regularly occurring hot sinkholes at the surface and unsafe working conditions. On Christmas Eve,

¹ Hillman, Nicholas & Weichman, Taylor, "Education Deserts The Continued Significance of "Place" in the Twenty-First Century, American Council of Education, 2016.

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1991, a teenager fell into a sinkhole and received third degree burns before being rescued. A County employee on a routine inspection also fell into a sinkhole.

Known and suspected contamination, site safety hazards and high associated costs for remediation have deterred private-sector entities from acquiring the site. Site redevelopment constraints include: 1) long-term settlement due to high organic composition, 2) subsurface pyrolysis creating sink holes and safety hazards, 3) redevelopment must be consistent with DEQ Solid Waste permits, including removal and management of waste elsewhere, 4) potential impacts to community during mitigation, and 5) high cost of remediation. Today, due to the safety risks and the redevelopment constraints, the landfill sits vacant and underutilized, fenced off from public access. This site meets the EPA definition of a “brownfield site” per CERCLA §101(39). The site is not adjacent to a body of water, nor is it in a designated flood plain.

b. Revitalization of the Target Area

i. Redevelopment Strategy and Alignment with Revitalization Plans

Following a multi-year due diligence and planning effort, OSU- Cascades finalized (in 2018) a long range development plan and master plan for a 128-acre campus, to fulfill an unmet demand for a 4-year university in Central Oregon. This master plan requires utilization of the existing 10-acre campus, remediation of the adjacent 72-acre landfill and reclamation of the adjacent 46-acre pumice mine (through beneficial reuse of material from landfill). The master plan includes academic/research space, student housing/facilities, recreation areas, early learning center in collaboration with the school district, middle market housing, net zero energy systems, open space and trails, and an innovation district integrated with University programs.

The Innovation District will be an urban mixed-use district comprised of strategic industry and research partners, middle market housing, and small-scale retail. This District will integrate University academic programs and research with industry and entrepreneurs, leveraging the fast growing and entrepreneurial economy of Central Oregon with a dynamic and innovative university. In addition to innovation and economic development benefits, the Innovation District will provide experiential learning opportunities on campus through internships and university-industry research partnerships, strengthening the bonds between the private sector and OSU- Cascades. This grant project will expedite the development of the Innovation District, a regional hub fostering partnerships between industries and university researchers and students, spurring economic development and improving the regional workforce development. It is estimated that the Innovation District will contribute \$282 million annually to the Deschutes County economy and \$318.8 million annually to the state by 2025.² This redevelopment strategy directly aligns with and advances local land use and economic development plans:

City of Bend: In 2016, the City identified the landfill and surrounding neighborhood as an “Opportunity Area”, encouraging future mixed-use redevelopment and a university campus through rezoning of the land to mixed use urban (MU). In 2018, the City approved the OSU institutional master plan and codified development standards for the subject site, in support of the redevelopment as a university campus to accommodate up to 5000 students by 2034.

Regional Solutions: Regional Solutions is a governor’s initiative to identify local priorities, integrated across state agencies. The Central Regional Solutions’ #1 priority is the development of OSU- Cascades. The remediation and redevelopment of the landfill will directly result in campus expansion to meet this goal.

Central Oregon Economic Development Strategy (CEDS): The region’s Economic Development District (EDD) 2017 strategy notes that development of a 4-year university in Central Oregon (an “Education Desert”) has been a regional priority for decades. The top two issues identified in the CEDS are housing availability/affordability and emerging workforce, both of which are directly addressed by the site redevelopment. The CEDS report highlights the importance of the expansion of OSU- Cascades to address regional workforce development challenges. The planned development of middle market housing for staff, faculty and public on campus directly addresses the CEDS-identified housing issue.

State of Oregon: In 2010, the Oregon State Board of Higher Education adopted the recommendations of the Higher Education Assessment team of Central Oregon to build a 4-year university in Central Oregon.³ In 2013,

² “University Innovation District Economic Development Impact in 2025,” ECONorthwest, 2017.

³ “Expanding Higher Education Access and Success in Central Oregon: Innovating for Current and Future Needs,” Higher Education Assessment Team (HEAT) of Central Oregon, July 2010.

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the Oregon Legislature funded the first phase of development of an OSU campus in Bend, to expand to a four-year university offering a range of undergraduate and graduate degrees. Redevelopment of the landfill as a campus directly supports the Legislature's commitment to build one in Bend.

ii. Outcomes and Benefits of Redevelopment Strategy

This grant project will expedite the development of the University Innovation District as the funds will expand phase 1 remediation in an area planned for the next Innovation District building. The Innovation District will be a regional hub fostering partnerships and shared spaces between industries and University researchers and students. These relationships will lead to long-term relationships, spur new economic development in high tech and traded sector industries, and improve the regional workforce development. The revitalization of the landfill will have numerous needed outcomes for the target area:

Economic Development & Stability: A recent economic development study estimated that the innovation district alone will contribute \$282 million annually to the Deschutes County economy and \$318.8 million annually to the state by 2025.⁴ The site revitalization will spur redevelopment of adjacent properties, as the impacts of partnerships between industry and University are expected to expand outside campus borders, revitalizing the entire southwest quadrant of the city. A broader economic base and an ecosystem that brings talent and innovation together with entrepreneurship through university programs will ensure redevelopment and growth. As discussed below, the region suffers high susceptibility to economic swings and the development of strategic partnerships for diversified economic outcomes presents an opportunity for redevelopment of the area and increased economic stability for the region.

Education Investment - Investment in educational institutions has demonstrated positive downstream benefits to local and regional economies. OSU-Cascades has established relationships with local educational partners and is committed to developing co-curricular programs that provide a broad range of educational options and keep higher education affordable for the community. The expansion of OSU is a significant step toward achieving broad economic and community development goals: in order to attract and retain stable growth industries, the OSU-Cascades will develop well-educated and trained workers to accept those jobs.

Workforce Development: OSU-Cascades expansion will provide expanded programming, including professional and high tech programs, as well as micro masters programs to hone professional skills for workforce development/advancement. Community partners support OSU-Cascades in addressing the need for workforce development of local students and professionals for retention and advancement of local businesses.

Infill Development, Open Space & Connectivity - Redevelopment of the landfill will promote infill development and efficient land use in a rapidly growing area where demands on land are challenging available resources. 72 acres of brownfield land inside city limits will be placed into suitable reuse, utilizing existing transportation and utility systems and supporting policies of infill rather than sprawl. Public access via trails and walkways across campus to commercial centers, recreational trails, and open green spaces will provide better connectivity for multi-modal transportation, especially non-motorized options. Opportunities for recreational use and alternative modes of transportation will reduce vehicle emissions.

Renewable Energy - The master plan includes development of net zero energy systems on the remediated land, including solar arrays, geothermal heating, and a central utility plant (possibly biomass). The remediation directly supports installation of these systems in two ways: 1) the landfill and adjacent pumice mine will be remediated together; clean fill from the landfill will be beneficially reused to partially fill the pumice mine. While filling the mine with clean landfill material, geothermal systems can be installed (rather than a costly excavation effort). 2) Central utility plant will be sited on remediated landfill land. Solar arrays will be placed on new buildings and atop the consolidated landfill cell.

Improved Affordable Housing Options - Workforce housing is increasingly unavailable in the Target Area, and employees have had to move further away to find housing. Business recruitment and retention has already been impacted and the city has seen relocation of industrial employers to less expensive markets in the region. Redevelopment of the landfill and adjacent pumice mine will create developable land to accommodate OSU's plans to construct middle market housing for staff, faculty and the public.

⁴ "University Innovation District Economic Development Impact in 2025," ECONorthwest, 2017.

c. Strategy for Leveraging Resources

i. Resources Needed for Site Reuse

Landfill remediation and redevelopment will occur in phases and will require funding from numerous sources, including state, federal, philanthropy and public-private partnerships. The OSU Foundation funded the environmental/remediation analyses and master plan development in the amount of \$2M. These analyses have laid the foundation for campus land development. For the first phase, in 2017, the 79th Oregon Legislative Assembly authorized XI-Q bonds as per Senate Bill 5505 in the amount of \$9M for OSU-Cascades for landfill and pumice mine remediation. Bonds will be issued in April 2019. OSU-Cascades must compete for state funding in future years for later phases. Advancement of the remediation through this EPA grant will favorably demonstrate initial outcomes, providing a competitive edge for future state funding.

The remediation of the landfill will result in buildable land in a City-designated Opportunity Area. The eastern portion of the landfill is planned for a University Innovation District, for collaborations between industry and the University. Cleanup of this area will attract public and private funding for development, as this area is pivotal to meeting the region's goals for economic development and workforce development. The risk of the unknowns during remediation is currently a hurdle in attracting private development funding; however, once the first phase of remediation is complete, OSU-Cascades will be able to demonstrate feasibility to private investors. OSU-Cascades is developing financing strategies to attract private funding for development of the Innovation District. In fact, current momentum and recent approval of the master plan attracted our first private development partner. Grace BioLabs would like to build the first Innovation District building on the post-remediated site. This building will boast an expansion of their research enterprise in Central Oregon to as well as house future OSU-Cascades' bios-sciences research space. The EPA grant will expedite the remediation in this area, resulting in more developable land (and as a result, funding) earlier.

ii. Use of Existing Infrastructure

The subject properties are surrounded by existing underutilized public infrastructure, including roads, water, sewer, and general utilities. Simpson Ave, Mt. Washington Dr, and Century Dr border the subject property and provide access, as well as water, sewer and other utilities to the site. These properties are included in OSU-Cascades' master plan for a 128-acre campus, which includes connecting university infrastructure to the existing public system. The City has made recent upgrades to the systems and has determined that the system can serve the future demand created by the University.

The redevelopment of the site will include construction of university infrastructure, including roads, water, sewer, and energy generation. The University plans to construct net zero energy systems, utilizing solar, geothermal and a central utility plant. The remediation of the landfill will result in excess clean fill that can be utilized to partially fill the adjacent pumice mine (also owned by OSU). The geothermal system will be installed in coordination with the landfill and pumice mine remediation; installation will occur as the fill is generated and placed, rather than through a costly excavation effort. This grant will expedite the landfill remediation, and therefore the pumice mine reclamation and development of energy systems. Remediation of the landfill will make OSU-Cascades more competitive in seeking funding for "green" energy systems.

2. COMMUNITY NEED AND COMMUNITY ENGAGEMENT

a. Community Need

i. The Community's Need for Funding

As a publicly-funded university, OSU-Cascade's financial health relies heavily on the Oregon state legislature. The University must compete with all other state-funded universities for limited funding. As a result of this competition, capital funding often falls short of requested amounts and that is the case for the landfill cleanup in the last legislative session. Tuition is also an important source of funding; however, the new campus is not able to raise sufficient funds with tuition to cover the cost of this cleanup and redevelopment. In order to ensure that this important project proceeds uninterrupted, OSU-Cascades must look for outside sources of funding. The cleanup grant will provide critical leverage for additional funding from other sources.

The three Central Oregon Counties and City of Bend are also unable to fund the cleanup of this site. This is demonstrated by the fact that the former municipal landfill was blighted for decades before OSU- Cascades arrived with a viable plan for revitalization. The Central Oregon economy has been highly vulnerable to economic downturns due to lack of diverse industry, geographic isolation and lack of population with education

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to match the skills needed. The area was heavily impacted by the Great Recession and City tax revenues have just returned to pre-2009 levels.

ii. Threats to Sensitive Populations

(1) Health or Welfare of Sensitive Populations. The Target Area encompasses concentrations of disadvantaged populations within close proximity to the brownfield site, raising a multitude of social, public health, and environmental justice concerns. The Target Area has a greater rate of unemployment and poverty compared to the city, state, and national rates. Immediately adjacent to the north is a lower-income mobile home neighborhood. In addition, the Target Area has a higher percentage of Hispanic or Latino population (10.4%) compared to the city (8.2%). Disadvantaged groups are less likely to have access to information about contaminated sites proximate to where they live and how to protect themselves, their children, the elderly, and pregnant women against such contamination. Children are especially vulnerable to contaminants and comprise one-tenth of the population in the Target Area, and 12.3% of them are without health insurance coverage. Three elementary schools are within the Target Area.

In the case of this landfill brownfield, risks include methane generation, continued pyrolysis, and soil contamination. The highest risk posed by the landfill is along eastern property edge where it borders commercial businesses. Pyrolysis (underground decomposition) is ongoing and significant land subsidence is evident. While the 72-acre landfill is fenced, it does not prevent the occasional trespass. Issues related to vapor from the soil and pyrolysis represent a real and significant community health hazard. The grant will help the University cleanup the landfill and address a large area of blight and threat to human health.

(2) Greater than Normal Incidence of Disease and Adverse Health Conditions. The populations in the tri-

Table 3: Health Data	Central Oregon¹	State
Asthma (2012-2015)	13.2%	10.9%
Diabetes (2012-2015)	11.4%	8.6%
Obesity (2012-2015)	29.6%	27.1
High Cholesterol (2012-2015)	32.4%	31.3%

county Target Area suffer from a greater-than-normal incidence of diseases or conditions associated with the environment (Table 3). There is limited data to quantify health and welfare impacts within the area. Of the tri-county area, Jefferson County has higher or equivalent prevalence of asthma, diabetes, obesity, and high cholesterol. Additionally, from the Central Oregon Community Feedback Survey, respondents provided themes that facilitate health, including access to the outdoors, parks, and recreation; positive sense of community and support; and the school system.

The grant will fund cleanup within this area of greater-than-normal incidence of disease and the full

phase will provide additional recreational opportunities. Indirectly, this development will facilitate health in the community. OSU-Cascades will continue reviewing health statistics and the relationship to this project.

(3) Economically Impoverished/Disproportionately Impacted Populations. Central Oregon was heavily impacted by the Great Recession of 2008-2010, and was saddled with one of the highest unemployment rates in the state. The region still lags in its recovery - at the recession's lowest point (May, 2009), the rate in Deschutes County was 15.4%, compared to Oregon's rate of 11.6% and the national rate of 9.4%. Even with current national recovery trends, the Target Area unemployment rates are higher than the national average - Target Area is 11.4% compared to the national average of 5.0%. The Target Area poverty rate still exceeds national numbers - Target Area is 21.5%; national average is 15.6%.

Education Desert – The Target Area is located in the center of the three counties that make up Central Oregon. A 2016 American Council on Education study⁵ describes Central Oregon as an Education Desert. The region lags behind the rest of Oregon in higher educational attainment, and the gap in rural Crook and Jefferson counties is significant. The study shows that most freshmen that attend a public university do so within 50 miles of home, so OSU-Cascades is critical for serving Central Oregon's rural families. But without additional capacity, OSU-Cascades will be unable to serve these students, and most are unlikely to move in order to attend another university. The nearest university is OSU in Corvallis, almost 3 hours away. OSU-

¹ Deschutes, Crook and Jefferson Counties

Source:

https://www.deschutes.org/sites/default/files/fileattachments/health_services/page/11305/rha_midpoint_update_final.pdf

⁵ Hillman, Nicholas & Weichman, Taylor, "Education Deserts The Continued Significance of "Place" in the Twenty-First Century, American Council of Education, 2016.

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Cascades' student body reflects the demographics of an underserved and rural community: 64% Central Oregonians; 31% First generation college students; 43% Pell Grant eligible, indicating financial need; 17% US minority students. With additional capacity, OSU-Cascades can serve a larger number of students from these populations, transforming students' and families' lives.

The former landfill site was selected by OSU due to its location in the heart of Central Oregon within close proximity to a growing and underserved population. The site has good access to services and OSU has a plan to remediate and redevelop the landfill to resolve environmental issues and create an economic and education engine for the region. The EPA cleanup grant is critical to achieving these plans.

b. Community Engagement

i. Community Involvement

Based on a community partner recommendation at the community meeting for this proposal, OSU-Cascades has formed a Technical Advisory Committee (TAC), comprised of relevant local community partners, to meet quarterly for input to the grant project, remaining cleanup and future redevelopment. These community partners have been engaged with OSU's master planning and visioning over the last four years. They are rooted in the local community, serving diverse constituents, and are committed to the success of the remediation and redevelopment, as a catalyst for economic development in the region. Input from these community partners directly affected OSU's decision to purchase and remediate the landfill for maximum redevelopment potential; their input will continue to shape the project.

Partner Name	Point of Contact	Specific Project Role
Century West Neighborhood Association	Nathan Moses (b) (6) (b) (6)	Communication to neighbors - residents & businesses
Bend La Pine Schools (BLPS)	Shay Mikalson, 541.355-1002 shay.mikalson@bend.k12.or.us	Education partnerships
Central Oregon Regional Solutions Team	Annette Liebe, 541.610-7215 Annette.LIEBE@oregon.gov	Liaison to State Agencies
Latino Community Association	Brad Porterfield, 541.382.4366 brad@latinocommunityassociation.org	Communication with underserved community
Deschutes County	Timm Schimke, 541.480.0389 Timm.Schimke@deschutes.org	Historic knowledge of site & landfill operations
City of Bend	Jon Skidmore, 541.350.3783 jskidmore@bendoregon.gov	Innovation District & economic development
St. Charles Foundation	Lisa Dobey, 541-706-2929 ladobey@stcharleshealthcare.org	Workforce development
East Cascades Works	Heather Ficht, 541.213.0684 heather@ecworks.org	Workforce development
Deschutes Public Library	Todd Dunkelberg, 541.312.1021 toddd@deschuteslibrary.org	Integration of the arts and humanities
Fratzke Commercial	Brian Fratzke, 541.480.2526 brian@fratcommercial.com	Economic development strategies
Technology Association of Oregon	Terri Hockett, 925.785.1600 Teri.Hockett@techoregon.org	Workforce development
Central Oregon Community College	Shirley Metcalf, 541.383.7201 smetcalf@cocc.org	Education partnerships and workforce development
Bend Chamber of Commerce	Katy Brooks, 541.382.3221 katy@bendchamber.org	Economic development strategies
High Desert Museum	Dana Whitelaw, 541.382.4754 dwhitelaw@highdesertmuseum.org	Integration of the arts and humanities

ii. Incorporating Community Input

Input from the community has been a cornerstone of OSU-Cascades' planning and has directly shaped the current plans; from remediation ideas to siting of an innovation district, OSU-Cascades has engaged the community in all project elements. This engagement will continue through the EPA grant and the entire

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redevelopment. In addition to regular public meetings and presentations at neighborhood associations, OSU-Cascades will distribute information through monthly e-newsletters, social media sites (Facebook, Twitter, YouTube), e-mail distributions, the OSU-Cascades website, and traditional media (newspaper, flyers, press releases, public access TV). The website will include an area for online comments. The TAC will distribute project information to their communities, following quarterly meetings, which will be public.

3. TASK DESCRIPTIONS, COST ESTIMATES, AND MEASURING PROGRESS

a. Proposed Cleanup Plan. The long-term cleanup plan includes full removal of waste in Cells 1 and 2 and consolidation of unusable/non-recyclable waste in existing Cell 3. The cleanup plan is based on the 2018 Analysis of Brownfield Cleanup Alternatives (ABCA).

Contaminated Media: Waste includes wood waste, tires, and construction debris. While the conditions of the Solid Waste Permit for the landfill did not allow the intake of certain materials (e.g., municipal solid waste, used oil), not all loads were inspected, and records indicate that there were periods of unattended dumping. Samples collected from landfill waste had concentrations of petroleum hydrocarbons, benzene, trichloroethylene, benzo(a)pyrene, arsenic, and lead above the DEQ RBCs for residential receptors. There were two exceedances of soil vapor RBCs for urban residential and occupational direct contact for ethylbenzene and naphthalene and methane above DEQ guidance. Pyrolysis has been observed in Cell 1.

Cleanup Methods: The long-term cleanup plan is divided into three phases based on the footprint of OSU's redevelopment plans. Each phase includes:

- Excavation and screening of all waste material in Cells 1 and 2. Removal of all pyrolysis in Cell 1.
- Blending of screened material with on-site soil to produce acceptable engineered fill for placement in the adjacent pumice mine pit and the remediated areas of Cell 1 and 2. This beneficial reuse will help shape the emptied landfill cells and the adjacent pumice mine.
- Recycling of recovered metals. Consolidation of unusable waste from Cells 1,2 into Cell 3.
- Capping of Cell 3, with long term monitoring and maintenance.
- Remediation and reclamation of the landfill (72 acres) and pumice mine (46 acres) for creation of approx 118 acres of developable land (82 acres unencumbered and 36 acres of passive use).

Phase 1: Remediation of the southern 3 acres of Cell 2 to create property ready for redevelopment. Approx 338,000 cy of waste will be excavated and approx 109,000 cy of that waste will be screened, processed, and stockpiled. Bulky wood waste and other unacceptable material will be re-landfilled in Cell 3 within the permitted landfill area. Any waste unacceptable for landfilling in Cell 3 will be removed and disposed of off-site.

Acceptable screened material will be blended with onsite soil and backfilled in the adjacent pumice mine and Cell 2; reclamation of the pumice mine is included in this phase. This phase will create 48 acres (3 acres in Cell 2 and 45 acres in the pumice mine) of property ready for redevelopment.

Phase 2: Remediation of the balance of Cell 2 and a portion of Cell 1. Approx 357,000 cy of waste will be excavated and approx 133,000 cy of that waste will be screened and blended with onsite soils to create backfill for use in Cells 1 and 2. The wood waste and non-screened waste will be re-landfilled in Cell 3 within the existing permitted landfill area. This will create approx 11 acres of property for redevelopment.

Phase 3: Remediation of the remaining 18.4 acres of Cell 1, including excavation of the remaining 918,000 cy of waste in Cell 1. 255,000 cy of the excavated waste will be screened and stockpiled for beneficial reuse. The wood waste, processed pyrolysis material, and un-screened waste will be placed in Cell 3. Screened material will be blended with onsite soil and then backfilled into Cell 1 to a desired finish grade. This will create an additional 18.4 acres of developable land in Cell 1.

Open spaces where waste is present, i.e., Cell 3, will likely require institutional and engineering controls, including long-term landfill gas perimeter and surface monitoring, site monitoring (inspections, landfill gas measurements), and physical cap and surface maintenance (settlement, vegetation management, etc.).

The grant project will expand Phase 1 remediation to include additional remediation of the eastern portion of Cell 2 to create property ready for redevelopment. Approx 44,000 cy of additional waste will be excavated, screened, processed, and stockpiled for future reuse. Bulky wood waste and other unacceptable material will be re-landfilled in Cell 3 within the existing permitted landfill area. Waste unacceptable for re-landfilling in Cell 3 will be removed and disposed off-site.

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Disposal requirements: The site is managed under DEQ Solid Waste Permit No. 215. The processed material will either be a beneficial product suitable for fill or consolidated and re-landfilled in Cell 3. If potentially hazardous materials warranting off-site disposal (e.g. drums, transformers) are excavated, they will be temporarily placed in a secured area (e.g. conex box). Contents will be characterized and properly disposed of. OSU-Cascades is working under Oregon DEQ's oversight to ensure proper management of materials and adherence to the Solid Waste Permit.

b. Description of Tasks and Activities. OSU will contract with a qualified licensed contractor to complete all remediation tasks per a contracted professional engineer's design. All contractors will be selected through public bid process. An engineer will oversee remediation to ensure compliance with design plans/specifications and to collect samples to assess cleanup action effectiveness. OSU-Cascades project management team will oversee all tasks to ensure proper process and compliance with state and federal regulations. All work will be coordinated with Oregon DEQ for management of materials and adherence to the Solid Waste Permit. Grant work will be conducted July 2019 to December 2019.

Task 1: Excavation of Waste. Excavation of approx 44,000 cy of waste material from Cell 2. Both daily cover soil and waste material will be removed, segregating any oversize or reject materials from the material that may be acceptable for use as a feedstock for a blended fill material. The contractor will manage material per the Solid Waste Permit, stormwater regulations and under construction oversight to ensure a process that efficiently and safely produces feedstock for engineered fill.

Task 2: Processing of Material. Approx 44,000 cy of waste will be screened; acceptable fill feedstock will be stockpiled. This process will be informed by a Pilot Study to determine the best method to avoid destruction of material and sufficient separation of the oversize/undersize material. A combination of equipment will be utilized (motorized screen, trommel, or grizzly screen) to produce material sufficient for blending.

Task 3: Disposal of Waste. Consolidation and re-landfilling of approx 8,000 cy of waste in Cell 3. A portion of the material excavated in Task 1 will be unusable for engineered fill due to geotechnical properties, environmental analysis or size. This waste material will be relocated to the permitted landfill Cell 3 and placed per Solid Waste Permit regulations.

Task 4: Community Outreach and Reporting. OSU personnel will provide community engagement throughout the project. In addition, OSU personnel will attend conferences to discuss the progress made onsite. OSU will provide the 100% of funds for personnel and travel.

As shown below, OSU will provide a 27% cost share for Tasks 1-4 through XI-Q bonds authorized by the Oregon State Legislature (SB 5505) in regular session 2017, with bonds to be issued in April 2019.

c. Cost Estimates and Outputs. Engineer's estimate is based on prevailing wage bids. Unit costs verified by local contractor.

Budget Categories		Task 1 Excavation of Waste (\$5.3/CY)	Task 2 Processing of Material - Haul & Screen (\$7.4/CY)	Task 3 Disposal of Waste - Place & Compact in Cell 3 (\$5.1/CY)	Task 4 Community Outreach & Reporting	Total
Direct Costs	Personnel				\$5,000	\$5,000
	Fringe Benefits					
	Travel				\$2,000	\$2,000
	Equipment					
	Supplies					
	Contractual	\$233,000	\$326,000	\$41,000		\$600,000
	Other (include subawards)					\$0
Total Direct Costs		\$233,000	\$326,000	\$41,000	\$7,000	\$607,000
Indirect Costs		\$11,650	\$16,300	\$2,050	\$350	\$30,350
Total Federal Funding (not to exceed \$500,000)		\$194,167	\$271,667	\$34,167	\$0	\$500,000
Cost Share (27% of requested federal funds)		\$50,483	\$70,633	\$8,883	\$7,350	\$137,350
Total Budget		\$244,650	\$342,300	\$43,050	\$7,350	\$637,350

Assumes approx 44,000 cy of waste excavated & screened and approximately 8000 cy of waste required to be re-landfilled.

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Outputs for each task are described below. Progress will be documented in monthly progress reports. The OSU-Cascades project manager and consultant project manager will coordinate weekly on project scope, schedule, and budget. A tracking sheet will document progress on each output.

Task 1: Excavation of Waste. Approx 44,000 cy of landfill material excavated. An area of 119,600 square feet remediated, assuming a waste depth of 10'.

Task 2: Processing of Material. Approx 44,000 cy of landfill material processed, with an assumed 36,000 cubic yards of material available for reuse.

Task 3: Disposal of Waste. Approx 8,000 cy of material re-landfilled per Solid Waste Permit within Cell 3.

Task 4: Community Outreach and Reporting. Meeting minutes + assigned deliverables for all meetings.

d. Measuring Environmental Results

Over the last five years of planning and constructing the first 10-acre campus, OSU-Cascades has developed a strong track record for successfully meeting rigorous design and construction schedules and budgets, due to strong leadership and specific direction at the onset of projects. A detailed work plan with clear milestones and responsibilities will be developed at the grant kick off meeting, to ensure compliance with grant requirements. Performance measures, focused on the grant project outputs will be developed with reporting requirements. OSU will track, measure, and report project performance through quarterly reports, the ACRES database, and the project website. The contractor will be held to a project schedule in the contract to ensure the project remains efficient and on schedule.

Outputs for the volume of material excavated, screened, landfilled and stockpiled will be documented through construction documentation and daily field reports. The OSU-Cascades project manager will record and review this weekly data for compliance with schedule and budget and will summarize data in monthly progress reports.

Outcomes associated with this project include creation of 119,600 sf of remediated land (depth of 10') and the creation of material for beneficial reuse. This allows expedited remediation for expansion of the OSU-Cascades campus, an economic and education engine for the region. This expedited remediation into the Innovation District area will expedite investment of private funds into redevelopment.

4. PROGRAMMATIC CAPABILITY AND PAST PERFORMANCE

a. Programmatic Capability

i. Organizational Structure

The grant project management/reporting will be completed by OSU staff, all of which are senior-level highly experienced professionals. Physical remediation and construction will be completed by a competitively selected contractor team. OSU-Cascades is well versed in managing construction and redevelopment projects, as the existing 10-acre campus was recently constructed adjacent to the subject brownfield site (2016). The leadership team that provided the vision for the campus and the construction oversight continues to oversee the remediation and expansion project. The University has hired additional highly experienced staffing for project management and construction oversight of this project. The University has the staff and expertise necessary to successfully manage this EPA grant project and the larger remediation.

Kelly Sparks, MBA, MA, AVP Finance & Strategic Planning, OSU-Cascades: Ms. Sparks is the principal in charge for all phases of the project. With over 20 years as a finance executive, Ms. Sparks is well versed in creative financing strategies, long-term visioning and community partnerships. Ms. Sparks leads economic development strategy conversations with the local government and community/university leaders.

Steve Pitman, PE, Director of Facilities and Operations, OSU-Cascades: Mr. Pitman oversees all campus capital development and construction and is the principal project manager on this project. A Civil Engineer with a Master's in water resources engineering, Steve has 20+ years of construction project management and facilities management, including work on Navy and Marine Corps bases and two higher education campuses.

This included roles on two landfill-related projects and other cleanup and remediation tasks.

Jarrold Penttila, Construction Project Manager, OSU-Cascades: Mr. Penttila will directly manage the reclamation and remediation project. Jarrold has a degree in construction management and has managed up to 3000 trades building semiconductor facilities on a 700-acre campus. In that role, Jarrold was responsible for overseeing all construction QAQC functions and logistically integrating five general contractors and 40 subcontractors, while executing \$4B of work covering more than 2.5 million SF of manufacturing space.

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Terri Libert, MBA, Fiscal Coordination, OSU-Cascades: Ms. Libert is responsible for budgeting, expense tracking, and forecasting for the institution's Education and General funds, OSU Foundation accounts, and capital projects. Terri has over 20 years of experience with financial planning in higher education and corporate environments, providing a thorough understanding of financial strategies and partnerships.

Tammy Wisco, PE, AICP, MPA, Principal, Retia Consult: Ms. Wisco is a project manager in planning/design, environmental restoration & Z land use. She managed the landfill due diligence and campus master plan land use approval. Well versed in grant management, led several environmental grants and was active in a Gulf Coast HUD-DOT-EPA Sustainable Communities project for post-Katrina + post-oil spill recovery.

Community engagement for this project has been established through five years of active community conversations around campus expansion, master planning, community integration and landfill remediation planning. Community partners are already engaged and relationships are established. OSU-Cascades' Communication Department has led this engagement and will continue to do so throughout the cleanup project. The grant project will be integrated into planned regular meetings with community partners, neighborhood associations and local government, and into a Technical Advisory Committee of partners.

ii. Acquiring Additional Resources

Cleanup work associated with this grant will be completed by a contractor. OSU-Cascades routinely procures contractors and consultants for completion of construction projects through a competitive procurement process to obtain the needed expertise. OSU maintains a contractor retainer list with over 150 firms that have completed the initial procurement steps, for ease of future procurement. The process will include acceptance of multiple proposals, evaluation of all proposals by a committee based upon established criteria, with award of the contract to the firm that best meets the criteria.

b. Past Performance and Accomplishments

ii. Has Not Received an EPA Brownfields Grant but has Received Other Federal or Non-Federal Assistance Agreements

EPA Targeted Brownfield Assistance, approx \$60k value: Through Region 10, EPA provided assistance with onsite testing (borings) to provide details on the areas of pyrolysis within the landfill. Project was conducted by EPA contractors and regular communication was necessary between the EPA and OSU. This on time + on budget project resulted in pyrolysis details to inform the final remediation design.

Business Oregon Integrated Planning Grant, \$25k: The State's economic development agency (home of Oregon Brownfields Program) provided funding for long range planning and landfill due diligence investigations, assisting OSU in its remediation and redevelopment plans. The project was completed on time, on budget and resulted in OSU completing a long range development plan and acquiring the landfill. Reporting was completed through regular updates to Business Oregon and the OSU Board of Directors.

Business Oregon Technical Assistance Grant, \$60k: Supported OSU's landfill due diligence (engineering & environmental investigations), resulting in acquisition of the landfill for redevelopment. Due diligence efforts were tied to a contractual agreement with the County (landfill owner). Timelines and budgets were met and reporting was completed through regular updates to Business Oregon and OSU Board of Directors.

USDA Forest Service Biomass Planning Grant, \$126,041: Funded the evaluation and integration of a possible biomass energy district into the OSU-CASCADES Long Range Development Plan, with proposed location on the former landfill. The project was completed on budget and all reporting requirements were complied with.

ATTACHMENT A: Threshold Criteria Response

Attachment A. THRESHOLD CRITERIA RESPONSE

1. Applicant Eligibility

The State of Oregon, acting through the Board of Trustees of Oregon State University, is the applicant and is eligible to apply as a government entity created by state legislature.

2. Previously Awarded Cleanup Grants

No EPA Brownfields Cleanup Grant funds have been awarded to or expended on this brownfield site (former Deschutes County Demolition Landfill).

3. Site Ownership

The State of Oregon acting through the Board of Trustees of Oregon State University, referred to on the application form as “Oregon State University” (Applicant), is the sole owner of the site (former Deschutes County Demolition Landfill) that is proposed as the subject site for this Cleanup Grant proposal.

4. Basic Site Information

Name of Site: Former Deschutes County Demolition Landfill/ Future OSU-Cascades Campus

Address of Site: The approximately 72-acre subject property is comprised of three parcels, located at 19745 Simpson Avenue, 19795 Simpson Avenue, and 1435 SW Simpson Avenue.

Current Owner of Site: State of Oregon acting through the Board of Trustees of Oregon State University, referred to on the application form as “Oregon State University”.

5. Status and History of Contamination at the Site

Hazardous Substances or Petroleum: During landfill sampling in 2008, several hazardous substances were sporadically detected, including arsenic, lead, petroleum products (benzene and polycyclic aromatic hydrocarbons) and tetrachloroethylene. Potentially asbestos-containing material (PACM) was also observed, in line with the era of the demolition debris placed in the landfill. Recent (July 2016) site investigations indicated that methane exists in the cover soils throughout the landfill.

Operational History & Current Use of Site: Originally an abandoned surface mine, from 1972 to 1996 the 72-acre property was used as a landfill for construction and demolition debris, including tires as well as industrial waste (primarily sawdust from area sawmills). Most of the landfill was closed in 1997. Closure of the eastern 23-acre portion of the landfill remains unfinished due to waste pyrolysis (decomposition of organic matter by heating without oxygen), which has created an unstable landfill cover with sinkholes at the ground surface and unsafe working conditions.

No reclamation has been completed, so the landfill contamination still exists on the site. Due to safety hazards, the landfill is fenced and closed off to the public; only routine monitoring

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and maintenance currently occur on site. The site was recently acquired by OSU for development of a campus following remediation, which will begin in spring/ summer 2019.

Environmental Concerns: Samples collected from waste material in the landfill had concentrations of petroleum hydrocarbons, benzene, trichloroethylene, benzo(a)pyrene, arsenic, and lead above the DEQ RBCs for residential receptors. There were two exceedances of soil vapor RBCs for urban residential and occupational direct contact for ethylbenzene and naphthalene and methane above DEQ guidance. As the landfill is unlined and contains constituents of concern, there is a possibility of a release from the Site; however, this is considered applicable to soil, as groundwater appears 150+ feet below the waste material. This controlled recognized environmental condition is currently managed through restricted access to the Site, the presence of the cover material, the depth of native soil, the composition of substrate, and depth to groundwater. Additionally, the landfill is managed through compliance with the Solid Waste Permit.

Portions of the landfill were closed in 1997. Closure of the eastern 23-acre portion is unfinished due to waste pyrolysis (decomposition of organic matter by heating without oxygen), which has created an unstable cover with sinkholes at the surface and unsafe working conditions. On Christmas Eve, 1991, a teenager fell into one of these sinkholes and received third degree burns before being rescued. Additionally, while on a routine inspection, a County employee also fell into a sinkhole. Hot sinkholes continue to appear on a regular basis.

Source, Nature & Extent of Contamination: Originally an abandoned surface mine, from 1972 to 1996, the 72-acre property was used as a landfill for construction and demolition debris, including tires as well as industrial waste (primarily sawdust from area sawmills). Most of the Demo Landfill was closed in 1997. While the Solid Waste Permit did not allow the intake of certain materials (e.g., municipal waste, oil), not all loads were inspected, and there were periods of unattended dumping. Closure of the eastern 23-acre portion of the Demo Landfill remains unfinished due to waste pyrolysis (decomposition of organic matter by heating without oxygen), which has created an unstable landfill cover with sinkholes at the ground surface and unsafe working conditions.

No reclamation has been completed, so the landfill contamination still exists on the site. The investigations indicate that the landfill debris, including plywood, molding, sawdust, and wood trimmings likely comprise the majority of fill in two of the three landfill cells. The third cell, which operated during the later years (1990s) includes significant deposits of demolition debris, including razed structures, concrete, and building materials. During landfill sampling in 2008, several hazardous substances were sporadically detected, including arsenic, lead, petroleum products (benzene and polycyclic aromatic hydrocarbons) and tetrachloroethylene. Potentially asbestos-containing material (PACM) was also observed, in line with the era of the demolition debris placed in the landfill. Recent (July 2016) site investigations indicated that methane exist in the cover soils throughout the landfill.

6. Brownfields Site Definition

The proposed site is a) not listed or proposed for listing on the National Priorities List; b) not subject to unilateral administrative orders, court orders, administrative orders on consent, or judicial consent decrees issued to or entered into by parties under CERCLA; and c) not subject to jurisdiction, custody, or control of the U.S. government.

7. Environmental Assessment Required for Cleanup Grant Proposals

A Phase II environmental site assessment was completed in 2013, including deep borings and groundwater monitoring. Following the acquisition of the property, a remedial action plan was developed in 2018 for the Oregon DEQ review and approval. Various other environmental investigations have been conducted at the site and are summarized in the ABCA:

- Subsurface Assessment (David Evans & Associates, Inc, 1997)
- Demolition Landfill Redevelopment Study (URS Corporation, 2002)
- Demolition Landfill Subsurface Investigations Study (GBB, 2008)
- Phase I Environmental Site Assessment, Adjacent Property (PBS, 2013)
- Focused Site Investigation, Adjacent Property (PBS, 2013)
- Phase II Characterization Report (PBS, 2013)
- Former Demolition Landfill Mitigation Evaluation (APEX, 2014)
- Focused Site Investigation (Maul Foster Alongi, 2016)
- Phase I ESA (Maul Foster Alongi, 2018)

8. Enforcement or Other Actions

The Applicant (Oregon State University) is not the responsible party for the contamination of the subject site. There are no known ongoing or anticipated environmental enforcement or other actions related to the site. The applicant is not aware of any inquiries or orders from federal, state, or local government entities regarding the contamination, including liens.

9. Sites Requiring a Property-Specific Determination

Based on our review, OSU has determined that the site is not subject to this determination review process for the following reasons:

- There are no planned or ongoing removal actions under CERCLA;
- The site has not been issued or entered into a unilateral administrative order, a court order, an administrative order on consent, or judicial consent decree or to which a permit has been issued by the United States or an authorized state under the Resource Conservation and Recovery Act (RCRA), the Federal Water Pollution Control Act (FWPCA), the Toxic Substances Control Act (TSCA), or the Safe Drinking Water Act (SDWA);
- The site is not subject to RCRA to which a corrective action permit or order has been issued or modified to require the implementation or corrective measures;
- The site is not a land disposal unit that has submitted a RCRA closure notification or is subject to closure requirements specified in a closure plan or permit;
- There has been no documented release of PCBs requiring that the property is subject to

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- TSCA remediation; and
- The site is not receiving monies for cleanup from the LUST Trust Fund.

10. Threshold Criteria Related to CERCLA/Petroleum Liability

- a.** The applicant has determined it is eligible for a Brownfields Grant to address hazardous substances as it can demonstrate that it meets the requirements for asserting an affirmative defense to CERCLA liability through a landowner liability protection.

OSU is a bona fide prospective purchaser (BFPP) through completion of a Phase I ESA that met the rules and standards for all appropriate inquiries. In addition, OSU meets its continuing obligations through an Easement and Equitable Servitudes covering the Site, between the Board of Trustees of Oregon State University and the DEQ, that was recorded on April 9, 2018 and a Consent Judgment filed with the Circuit Court of the State of Oregon on June 6, 2018. OSU is not the party responsible for the contamination.

Demonstrate that the applicant meets the requirements for the BFPP CERCLA liability protection.

a. Information on Property Acquisition

- i. The State of Oregon (through OSU) acquired the property through \$1 purchase from another governmental institution (Deschutes County).
- ii. The State of Oregon (through OSU) signed the purchase & sale agreement on April 6, 2018.
- iii. The nature of ownership is fee simple.
- iv. Property was acquired from Deschutes County.
- v. The State of Oregon/OSU does not have any familial, contractual, corporate, or financial relationships or affiliations with the prior owner or operator of the property.

b. Pre-purchase Inquiry

- i. A Phase I ESA was conducted on behalf of OSU less than 6 months prior to signature of purchase and sale agreement. A final draft of the Phase I ESA was prepared on April 2, 2018 and was finalized on April 6, 2018, prior to property transaction on the same day. This Phase I ESA incorporated a site walk and an interview update conducted on March 20, 2018, a focused groundwater investigation on March 21, 2018, and a database search dated February 20, 2018.
- ii. The Phase I ESA was completed by Maul Foster Alongi, Inc, a qualified environmental engineering firm in Portland, Oregon that is familiar with the site through its due diligence of the site for OSU.
- iii. The Phase I ESA completed by MFA was conducted less than 180 days prior to property acquisition to take advantage of the bona fide prospective purchaser provision.

c. Timing and/or Contribution Toward Hazardous Substances Disposal: OSU is not liable in any way for contamination at the site or affiliated with any other person potentially liable for the contamination. OSU has not, at any time, arranged for the disposal of hazardous substances at the site or transported hazardous substances to the site. All disposal of hazardous substances at the site occurred prior to OSU acquired the site.

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d. Post-Acquisition Uses: The property is fenced off and blocked from the public. Since the State's ownership of the property through OSU, the property has not been used other than for monitoring and maintenance of the site, which continues to occur under the direction of the Oregon DEQ.

e. Continuing Obligations: OSU entered into an Easement and Equitable Servitudes and Consent Judgment outlining continued monitoring, maintenance and remedial actions. In addition, OSU obtained a solid waste landfill permit modification to outline the requirements and identify both OSU and Deschutes County as co-operators bound to the conditions of the permit.

Further,

- OSU is not aware of any land use restrictions on the site and will not impede the effectiveness or integrity of any institutional controls associated with response actions at the site.
- OSU will provide full cooperation, assistance and access to authorized persons.
- OSU will comply with any CERCLA information requests and administrative subpoenas, and provide all legally required notices with respect to the discovery or release of any hazardous substances found at the site.
- OSU will not impede performance of a response action or natural restoration.
- OSU will provide all legally required notices.

11. Cleanup Authority and Oversight Structure

The OSU-Cascades project management team will oversee all cleanup activities on the site. Additionally, the DEQ is responsible for overseeing cleanup at the site. Documents prepared for this site are submitted to the DEQ under state Environmental Cleanup Site Information number 4884. The site cleanup is expected to be governed under Oregon Administrative Rule (OAR) 340-122—the Hazardous Substance and Remedial Action Rules. These rules require that any removal or remedial action be conducted in a manner that assures protection of the environment and present and future public health, safety, and welfare.

An Easement and Equitable Servitudes covering the Site, between the Board of Trustees of Oregon State University and the DEQ, was recorded on April 9, 2018. Additionally, remedial actions will be conducted under the Consent Judgment filed with the Circuit Court of the State of Oregon on June 6, 2018.

OSU has full access to the site, no adjacent property access is necessary.

12. Community Notification

a. Draft Analysis of Brownfield Cleanup Alternatives (ABCA)

The draft proposal, including the ABCA, were presented and available to the public for comment through a public meeting held on January 16, 2019. The ABCA is included in this submittal, in Attachment D, and summarizes:

- Site and contamination issues, clean up standards, and applicable laws;
- The cleanup alternatives considered; and

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- The proposed cleanup

b. Community Notification Ad

The Applicant published a community notification ad in the *Bend Bulletin* (local Central Oregon printed newspaper) that ran from January 8-11, 2019. Meeting notification was also provided in a news release to Central Oregon media, OSU-Cascades employees, area communicators, elected officials and interested community members. The notice was also posted on the OSUCascades.edu webpage. The notifications clearly stated:

- That a copy of the grant proposal, including the draft ABCA is available for public review and comment;
- How to comment on the draft proposal;
- Where the draft proposal is located; and
- The date and time of the public meeting.

c. Public Meeting

A public meeting was held on January 16, 2019 at OSU-Cascades, to consider public comments prior to the submittal of this proposal. The following meeting documents are included in Attachment C:

- Public comments received;
- Applicant's response to comments;
- Summary of the public meeting; and
- Meeting sign-in sheets.

d. Submission of Community Notification Documents

The following items are attached as noted:

- Draft ABCA (Attachment D)
- Public notification ad (Attachment C)
- Summary of comments received (Attachment C);
- Applicant's response to public comments (Attachment C);
- Summary of public meeting (Attachment C); and
- Meeting sign in sheets (Attachment C).

13. Statutory Cost Share

The Applicant is pleased to provide a cost share of 27% of the total federal cleanup funds awarded, in the form of money from a non-federal source. The 79th Oregon Legislative Assembly in regular session 2017 authorized XI-Q bonds as per Senate Bill 5505 in the amount of \$9M for Oregon State University – Cascades. OSU-Cascades will match 27% of any EPA clean-up grant funding with a portion of the XI-Q bonds. The bonds will be issued in April 2019.

The Applicant is not requesting a waiver of the cost share.

ATTACHMENT B: Documentation of Committed Leveraged Funds

Enrolled
Senate Bill 5505

Printed pursuant to Senate Interim Rule 213.28 by order of the President of the Senate in conformance with presession filing rules, indicating neither advocacy nor opposition on the part of the President (at the request of Oregon Department of Administrative Services)

CHAPTER

AN ACT

Relating to state financial administration; creating new provisions; amending ORS 283.085 and 286A.833; and declaring an emergency.

Be It Enacted by the People of the State of Oregon:

SECTION 1. The amounts authorized, as provided by ORS 286A.035, for issuance of general obligation bonds of the state during the 2017-2019 biennium, notwithstanding section 10, chapter 705, Oregon Laws 2013, are as follows:

GENERAL OBLIGATION BONDS

General Fund Obligations

- | | |
|--|---------------|
| (1) Higher Education Coordinating Commission (Art. XI-G): | |
| (a) Oregon Institute of Technology, Center for Excellence in Engineering and Technology/Cornett Hall Renovation..... | \$ 2,050,000 |
| (b) Oregon State University: | |
| (A) Quality Foods and Beverage Center | \$ 9,100,000 |
| (B) Gilkey Hall Renovation | \$ 2,050,000 |
| (c) Portland State University, Graduate School of Education Facility..... | \$ 36,485,000 |
| (d) University of Oregon, Campus for Accelerating Scientific Impact..... | \$ 50,620,000 |
| (e) Western Oregon University: | |
| (A) Information Technology Center Renovation | \$ 540,000 |
| (B) Oregon Military Building Renovation | \$ 540,000 |
| (f) Blue Mountain Community | |

	College, Facility for Agricultural Resource Management.....	\$ 5,115,000
(g)	Chemeketa Community College, Agricultural Complex.....	\$ 6,125,000
(h)	Clackamas Community College:	
(A)	DeJardin Building Addition...	\$ 8,140,000
(B)	Student Services and Community Commons.....	\$ 8,140,000
(i)	Clatsop Community College, Marine Science Center Renovation and Expansion....	\$ 8,135,000
(j)	Columbia Gorge Community College, Middle College Prototype Facility	\$ 7,400,000
(k)	Lane Community College, Health Care Village Facility..	\$ 8,140,000
(L)	Linn-Benton Community College, Student Advising and Campus Safety Center ...	\$ 7,635,000
(m)	Mt. Hood Community College, Maywood Park Center.....	\$ 8,140,000
(n)	Oregon Coast Community College, Workforce Education and Resiliency Center	\$ 8,140,000
(o)	Portland Community College, Health Technology Building Renovation.....	\$ 8,140,000
(p)	Rogue Community College, Elk Building Science Facility Renovation and Expansion....	\$ 6,125,000
(q)	Southwestern Oregon Community College, Dellwood Hall Remodel and Expansion.....	\$ 2,805,000
(r)	Treasure Valley Community College, Workforce Vocational Center	\$ 2,865,000
(s)	Umpqua Community College, Industrial Technology Building.....	\$ 8,140,000
(2)	Department of Environmental Quality (Art. XI-H)	\$ 10,300,000
(3)	Oregon Business Development Department (Art. XI-M)	\$ 101,180,000
(4)	Oregon Business Development Department (Art. XI-N).....	\$ 20,430,000
(5)	Department of Education (Art. XI-P)	\$ 100,985,000
(6)	Oregon Department of Administrative	

Services (Art. XI-Q):	
(a) Department of Corrections:	
(A) Capital Improvements and Renewal.....	\$ 26,770,000
(B) Technology Infrastructure....	\$ 12,445,000
(b) Department of Education, Oregon School for the Deaf Facility Improvements.....	
	\$ 4,365,000
(c) Department of Human Services, ONE Integrated Eligibility and Medicaid Eligibility System.....	
	\$ 34,045,000
(d) Department of Justice, Child Support Enforcement Automated System.....	
	\$ 16,585,000
(e) Department of Revenue, Core Tax Revenue Systems Replacement.....	
	\$ 4,855,000
(f) Department of Veterans' Affairs:	
(A) Lebanon Veteran's Home Parking Lot.....	
	\$ 1,345,000
(B) The Dalles Veterans' Home Capital Improvements.....	
	\$ 1,195,000
(C) Roseburg Veterans' Home	
	\$ 10,720,000
(g) Housing and Community Services Department, Local Innovation and Fast Track Housing Program	
	\$ 81,090,000
(h) Higher Education Coordinating Commission:	
(A) Public Universities Capital Improvement and Renewal ...	
	\$ 50,620,000
(B) Eastern Oregon University, Loso Hall Renovation	
	\$ 5,575,000
(C) Oregon Institute of Technology:	
(i) Center for Excellence in Engineering and Technology/ Cornett Hall Renovation	
	\$ 38,475,000
(ii) Oregon Manufacturing Innovation Center, Research and Development Facility	
	\$ 3,940,000
(D) Oregon State University:	
(i) Cordley Hall Renovation	
	\$ 15,250,000
(ii) Fairbanks Hall Renovation ...	
	\$ 11,220,000
(iii) Gilkey Hall Renovation	
	\$ 1,045,000
(iv) Cascades Expansion Site Reclamation	
	\$ 9,145,000
(E) Portland State University, Graduate School of Education Facility.....	
	\$ 9,145,000

(F)	Southern Oregon University, Central Hall Capital Improvements.....	\$ 6,125,000
(G)	Western Oregon University:	
(i)	Information Technology Center Renovation	\$ 5,070,000
(ii)	Oregon Military Building Renovation	\$ 7,335,000
(i)	Legislative Administration Committee, Capitol Accessibility, Maintenance, and Safety	\$ 13,960,000
(j)	Oregon Judicial Department:	
(A)	Lane County Courthouse	\$ 5,115,000
(B)	Multnomah County Courthouse.....	\$ 102,495,000
(C)	Oregon Supreme Court Building Renovation.....	\$ 6,125,000
(k)	Oregon Military Department:	
(A)	Grants Pass Armory Service Life Extension	\$ 3,330,000
(B)	Regional Armory Emergency Enhancement Project	\$ 8,675,000
(C)	Regional Training Institute ..	\$ 6,630,000
(D)	Resiliency Grant Fund	\$ 5,070,000
(E)	Youth Challenge Armory	\$ 5,095,000
(L)	Oregon Youth Authority:	
(A)	Capital Improvements.....	\$ 17,450,000
(B)	MacLaren West Cottages Renovation	\$ 15,450,000
(C)	Rogue Valley Facility Improvements	\$ 7,095,000
(m)	State Department of Fish and Wildlife.....	\$ 10,215,000
(n)	State Forestry Department, Toledo Facility Replacement.	\$ 774,225
Dedicated Fund Obligations		
(7)	Department of Veterans' Affairs (Art. XI-A).....	\$ 120,000,000
(8)	Higher Education Coordinating Commission (Art. XI-F(1)):	
(a)	Portland State University:	
(A)	Land Acquisition for University Center Building ...	\$ 15,260,000
(B)	12th & Market Residence Hall.....	\$ 54,225,000
(C)	Graduate School of Education Facility.....	\$ 6,080,000
(D)	Corbett Building Purchase....	\$ 5,100,000
(b)	Oregon Institute of Technology, Student Recreation Center	\$ 5,115,000

(c)	Eastern Oregon University, Track and Field Facilities Restoration	\$	790,000
(9)	Department of Environmental Quality (Art. XI-H)	\$	10,000,000
(10)	Housing and Community Services Department (Art. XI-I(2))	\$	25,000,000
(11)	Oregon Department of Administrative Services (Art. XI-Q):		
(a)	Portland State Office Building Improvements.....	\$	13,360,000
(b)	State Forestry Department, Toledo Facility Replacement.	\$	1,075,775
	<u>Total General Obligation</u>		
	Bonds	\$	1,257,310,000

SECTION 2. The amounts authorized, as provided by ORS 286A.035, for issuance of revenue bonds of the state during the 2017-2019 biennium are as follows:

REVENUE BONDS

Direct Revenue Bonds

Housing and Community Services Department.....	\$	300,000,000
Oregon Business Development Department.....	\$	30,000,000
Oregon Department of Administrative Services, Lottery Revenue Bonds	\$	199,860,000
<u>Total Direct Revenue</u>		
Bonds	\$	529,860,000

Pass-Through Revenue Bonds

Oregon Business Development Department, Industrial Development Bonds.....	\$	400,000,000
Oregon Business Development Department, Beginning and Expanding Farmer Loan Program	\$	10,000,000
Oregon Facilities Authority..	\$	1,350,000,000
Housing and Community Services Department.....	\$	325,000,000
<u>Total Pass-Through Revenue</u>		
Bonds	\$	2,085,000,000
<u>Total Revenue Bonds</u>	\$	2,614,860,000

SECTION 3. The amount authorized, as provided by ORS 286A.035, for issuance of certificates of participation and other financing agreements of the state during the 2017-2019 biennium for the Oregon Department of Administrative Services is \$110,985,000.

SECTION 4. The amounts allocated for private activity bonds, as provided in ORS 286A.615, are as follows:

- (1) For calendar year 2018,
the amount of \$409,346,500

is allocated as follows:

- (a) Oregon Business Development
Department, Industrial
Development Bonds..... \$ 40,000,000
- (b) Oregon Business Development
Department, Beginning and
Expanding Farmer Loan
Program \$ 5,000,000
- (c) Housing and Community
Services Department..... \$125,000,000
- (d) Private Activity Bond
Committee..... \$239,346,500
- (2) For calendar year 2019,
the amount of \$409,346,500
is allocated as follows:
 - (a) Oregon Business Development
Department, Industrial
Development Bonds..... \$ 40,000,000
 - (b) Oregon Business Development
Department, Beginning and
Expanding Farmer Loan
Program \$ 5,000,000
 - (c) Housing and Community
Services Department..... \$125,000,000
 - (d) Private Activity Bond
Committee..... \$239,346,500
- (3) If an increase in this state's population, a
sufficient increase in the region's Consumer
Price Index or a change in federal law allows
the private activity bond limit as set by the
Internal Revenue Code of 1986, as amended, to
exceed \$409,346,500 during the 2018 calendar
year or \$409,346,500 during the 2019 calendar
year, the increase is allocated to the Private
Activity Bond Committee.

SECTION 5. (1) For purposes of Article XI-F(1), section 1, of the Oregon Constitution, the Legislative Assembly determines that the projects authorized to be financed pursuant to section 1 (8) of this 2017 Act with bonds issued under Article XI-F(1) of the Oregon Constitution will benefit higher education institutions or activities.

(2) For purposes of Article XI-G, section 1, of the Oregon Constitution, the Legislative Assembly determines that the projects authorized to be financed pursuant to section 1 (1) of this 2017 Act with bonds issued under Article XI-G of the Oregon Constitution will benefit higher education institutions or activities or community colleges authorized by law to receive state aid.

SECTION 6. Bonds authorized under section 1 (1) of this 2017 Act may not be issued until the constructing authority certifies that the constructing authority has matching funds available for the same or similar purposes as the Article XI-G bonds that will fund the grant to the constructing authority, that the match funds are not proceeds of indebtedness incurred by the state under any other article of the Oregon Constitution, and that the match funds are available to the constructing authority in an amount at least equal to the amount of indebtedness incurred by the state through the issuance of the Article XI-G bonds.

SECTION 7. ORS 286A.833 is amended to read:

286A.833. (1) In accordance with the applicable provisions of this chapter, the State Treasurer, with the concurrence of the [Director of the Oregon Department of Administrative Services] **Higher Education Coordinating Commission**, may issue Article XI-F(1) bonds **for the benefit of a public university** if:

(a) The [Higher Education Coordinating Commission] **Director of the Oregon Department of Administrative Services** requests that bonds be issued for the purposes specified in Article XI-F(1) of the Oregon Constitution, plus an amount determined by the State Treasurer to pay estimated bond-related costs;

(b) The issuance does not exceed the budget authorization for bond issuance established under ORS 286A.035; and

(c) A loan agreement is executed under ORS 286A.836 prior to sale of the bonds.

(2) The State Treasurer may issue Article XI-F(1) bonds for the purpose of refunding Article XI-F(1) bonds, with the concurrence of a public university that received proceeds of Article XI-F(1) bonds to be refunded.

(3) The State Treasurer shall deposit the net proceeds of Article XI-F(1) bonds in one or more project funds established in the State Treasury or with a third party under contract with the Oregon Department of Administrative Services and approved by the State Treasurer. Net proceeds of Article XI-F(1) bonds must be expended for the purposes described in the commission's budget authorization.

(4) If at any time the department and the commission jointly determine that the net proceeds of Article XI-F(1) bonds deposited in a project fund pursuant to subsection (3) of this section exceed the cost of the project described in the commission's budget authorization, the department may allocate and transfer the excess amount as determined by the department to other project funds, the Article XI-F(1) Bond Fund established under ORS 286A.839 or the Article XI-F(1) Bond Administration Fund established under ORS 286A.842. Before transferring an excess amount under this subsection, the department shall consult with the public university for whose benefit the Article XI-F(1) bonds were issued, but the department may transfer an excess amount without the approval of the public university. Excess amounts may not be transferred to a project fund for the project of another public university unless the applicable loan agreements and loan repayment schedules are amended to reflect the transfer.

(5) Article XI-F(1) bonds are direct general obligations of the State of Oregon and must contain a direct promise on behalf of the State of Oregon to pay the principal of, the interest on and the premium, if any, on the Article XI-F(1) bonds. The State of Oregon shall pledge its full faith and credit and taxing power to the payment of the principal of, the interest on and the premium, if any, on Article XI-F(1) bonds, and the ad valorem taxing power of the State of Oregon may be pledged to pay Article XI-F(1) bonds.

SECTION 8. ORS 283.085 is amended to read:

283.085. As used in ORS 283.085 to 283.092:

(1) "Available funds" means funds appropriated or otherwise made available by the Legislative Assembly to pay amounts due under a financing agreement for the fiscal period in which the payments are due, unexpended proceeds of the financing agreement and reserves or other amounts that have been deposited in trust to pay amounts due under the financing agreement.

(2) "Credit enhancement agreement" means any agreement or contractual relationship between the state and any bank, trust company, insurance company, surety bonding company, pension fund or other financial institution providing additional credit on or security for a financing agreement or certificates of participation authorized by ORS 283.085 to 283.092.

(3) "Financing agreement" means a lease purchase agreement, an installment sale agreement, a loan agreement or any other agreement:

(a) To finance real or personal property that is or will be owned and operated by the state or any of its agencies;

(b) To finance infrastructure, including but not limited to telecommunications systems, systems for water, sewage, electricity, steam or natural gas and other equipment or improvements that are necessary or appropriate to support a facility that is, or will be, owned or operated by the state;

(c) To finance infrastructure components that are, or will be, owned or operated by a local government agency of this state if the Director of the Oregon Department of Administrative Services determines that financing the infrastructure facilitates the construction or operation of an adult or juvenile corrections facility or a public safety training facility owned or operated by the state or any of its agencies;

(d) To finance all or a portion of the state's pension liabilities for retirement, health care or disability benefits, in an amount that produces net proceeds that do not exceed the State Treasurer's estimate of those liabilities based on information provided to the State Treasurer by the Public Employees Retirement System; [or]

(e) To finance:

(A) The release of all or a portion of the Elliott State Forest from restrictions resulting from ownership of that forest by the Common School Fund; or

(B) Compensation paid to the Common School Fund for the preservation of noneconomic benefits of the forest through the imposition, transfer or sale of restrictions such as easements, use requirements or other methods that preserve noneconomic benefits of the forest for the public, including recreation, aesthetics, wildlife or habitat preservation or other environmental and quality of life considerations; or

[~~(e)~~] **(f)** To refinance previously executed financing agreements.

(4) "Financing costs" means costs or expenses that the director determines are necessary or desirable in connection with entering into financing agreements and maintaining the certificate of participation program, including but not limited to payment of:

(a) Amounts due under financing agreements;

(b) Costs and obligations the director or any other agency of the state incurs in connection with the exercise of a power granted by ORS 283.085 to 283.092; and

(c) Amounts due in connection with the investment of proceeds of financing agreements.

(5) "Personal property" means tangible personal property, software and fixtures.

(6) "Property rights" means, with respect to personal property, the rights of a secured party under ORS chapter 79, and, with respect to real property, the rights of a trustee or lender under a lease authorized by ORS 283.089 (1)(e).

(7) "Software" means software and training and maintenance contracts related to the operation of computing equipment.

SECTION 9. (1) A community college for which one project to be funded with general obligation bonds authorized to be issued under Article XI-G of the Oregon Constitution is approved in this 2017 Act may not request approval of an additional project to be funded with general obligation bonds authorized to be issued under Article XI-G of the Oregon Constitution until the beginning of the regular session of the Legislative Assembly held in 2021, unless the community college withdraws the project approved under this 2017 Act.

(2) A community college for which two projects to be funded with general obligation bonds authorized to be issued under Article XI-G of the Oregon Constitution is approved in this 2017 Act may not request approval of an additional project to be funded with general obligation bonds authorized to be issued under Article XI-G of the Oregon Constitution until the beginning of the regular session of the Legislative Assembly held in 2025, unless the community college withdraws a project approved under this 2017 Act.

SECTION 10. (1) Out of the amount specified in section 1 (6)(j)(A) of this 2017 Act, the State Treasurer may issue Article XI-Q bonds in an amount not to exceed \$5,000,000 of net proceeds for the purposes and in the manner specified in section 8, chapter 705, Oregon Laws 2013, plus an amount estimated by the State Treasurer to pay estimated bond-related costs.

(2) Out of the amount specified in section 1 (6)(j)(B) of this 2017 Act, the State Treasurer may issue Article XI-Q bonds in an amount not to exceed \$92,600,000 of net proceeds for the purposes and in the manner specified in section 8, chapter 705, Oregon Laws 2013, plus an amount estimated by the State Treasurer to pay estimated bond-related costs.

(3) For purposes of sections 8 and 9, chapter 705, Oregon Laws 2013, and section 64, chapter 723, Oregon Laws 2013, bonds issued pursuant to this section are considered to be bonds issued pursuant to section 8, chapter 705, Oregon Laws 2013.

(4) Bonds may not be issued out of the amounts specified in section 1 (6)(j)(A) and (B) of this 2017 Act except as provided in this section.

SECTION 11. (1) As used in this section:

(a) “Apprentice” has the meaning given that term in ORS 660.010.

(b) “Apprenticeable occupation” has the meaning given that term in ORS 660.010.

(c) “Apprenticeship training program” means the total system of apprenticeship that a particular local joint committee, as defined in ORS 660.010, operates, including the local joint committee’s registered standards and all other terms and conditions for qualifying, recruiting, selecting, employing and training apprentices in an apprenticeable occupation.

(d) “Minority individual” has the meaning given that term in ORS 200.005.

(e) “Qualified contracts” means contracts that:

(A) Are for improvements to real property in connection with the University of Oregon Campus for Accelerating Scientific Impact;

(B) Have a cost that, at the time the contract is executed, is estimated to be greater than \$200,000; and

(C) Are to be paid from proceeds of bonds issued under Article XI-G of the Oregon Constitution.

(f) “Woman” has the meaning given that term in ORS 200.005.

(2) The University of Oregon, in all qualified contracts, shall require contractors to:

(a) Employ apprentices to perform 15 percent of the work hours that workers in apprenticeable occupations perform under the contract, in a manner consistent with the apprentices’ respective apprenticeship training programs;

(b) Establish and execute a plan for outreach, recruitment and retention of women and minority individuals to perform work under the contract; and

(c) Require any subcontractors engaged by the contractors to abide by the requirements set forth in paragraphs (a) and (b) of this subsection.

(3) On or before February 1 of each year, the University of Oregon shall report to the Joint Committee on Ways and Means or Joint Interim Committee on Ways and Means on the amount of work performed by apprentices, women and minority individuals under qualified contracts.

SECTION 12. This 2017 Act being necessary for the immediate preservation of the public peace, health and safety, an emergency is declared to exist, and this 2017 Act takes effect July 1, 2017.

Passed by Senate July 6, 2017

.....
Lori L. Brocker, Secretary of Senate

.....
Peter Courtney, President of Senate

Passed by House July 7, 2017

.....
Tina Kotek, Speaker of House

Received by Governor:

.....M.,....., 2017

Approved:

.....M.,....., 2017

.....
Kate Brown, Governor

Filed in Office of Secretary of State:

.....M.,....., 2017

.....
Dennis Richardson, Secretary of State

ATTACHMENT C: Community Meeting Documentation

- Public notification ad
- News release
- OSU-Cascades website for public comments
- News articles/press about meeting
- Comments/letters received
- OSU-Cascades' response to comments
- Summary of public meeting (minutes)
- Meeting sign in sheets

Tykeson Hall, Rm. 111, Oregon State University - Cascades

Run Dates: January 8 – 11, 2019

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News Release

Distribution: News Media Outlets throughout Central Oregon Region

<https://osucascades.edu/news/osu-cascades-host-public-meeting-federal-grant-proposal>



Oregon State University
Cascades

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OSU-Cascades to host public meeting on federal grant proposal

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Jan 07, 2019

Oregon State University – Cascades will host a public meeting to gather input on a proposal for an Environmental Protection Agency FY19 brownfields cleanup grant.

The grant proposal seeks funding for the planned remediation of university-owned property, a former county demolition landfill.

The public meeting will take place from 5:30 to 7 p.m. on Jan. 16 in Tykeson Hall, Rm. 111 on the OSU-Cascades campus located at 1500 SW Chandler Ave. in Bend.

Public comment must be submitted at the meeting or in writing by Jan. 22. Written comments can be mailed to: OSU-Cascades, Planning Office, 1500 S.W. Chandler Ave., Bend, OR 97702. An online comment form is also available at [OSUcascades.edu/grantproposal](https://osucascades.edu/grantproposal).

About OSU-Cascades: Oregon State University's campus in Bend, Ore. features outstanding faculty in degree programs that reflect Central Oregon's vibrant economy and abundant natural resources. Nearly 20 undergraduate majors, 30 minors and options, and three graduate programs include computer science, energy systems engineering, kinesiology, hospitality management, and tourism, recreation and adventure leadership. OSU-Cascades expanded to a four-year university in 2015; its new campus opened in 2016.

Contact Info

OSU-Cascades
1500 SW Chandler
Avenue
Bend, Oregon 97702
541-322-3100 (Main)

Partner Institutions:
[Oregon State University](#)
[Central Oregon](#)
[Community College](#)

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<https://osucascades.edu/webform/brownfields-cleanup-grant-proposal-public-comment-form>

<p>Contact Info</p> <p>1000 University 1000 SW Charleston Avenue Portland, Oregon 97209 503-527-5225 (Main)</p> <p>Partner Institutions: Oregon State University University of Northern Iowa University of Wisconsin-La Crosse</p> <p>© 2018 Oregon State University</p> <p>Facebook Twitter Instagram</p>	<p>ABOUT</p> <p>Admissions Academic Advising Employment Directory Registration Campus Population Campus Safety Campus Services Diversity Innovation Co-Lab Policies</p>	<p>ACADEMICS</p> <p>Freshman Seminars Academic Calendar Career Center Schedule of Classes Research Opportunities Honors Study Abroad Online Tools Library Continuing Education</p>	<p>CAMPUS LIFE</p> <p>Student Success Camps Career Center Competition Lab Clubs Greek Life Housing Student Wellness</p>	<p>VISIT</p> <p>Visit OSU Corvallis About OSU Maps & Directions Parking Transportation Options</p>
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EPA Brownfields Cleanup Grant (FY19)

Competitive grant, with up to 40 grants to be awarded around the U.S., up to a total of \$11 million with a maximum \$500,000 per grant.



Oregon State University - Cascades is expanding, creating a 128-acre campus for up to 5,000 students. The transformation of university properties — a former pumice mine and former Deschutes County demolition landfill — is one of the most innovative university development projects in the country.

A phased master plan will accommodate the construction of campus buildings and amenities as enrollment grows and funding is available. The remediation plan proposes reusing material from

the landfill to grade and fill the pumice mine, as well as grade portions of the landfill. The approach is sensitive to the surrounding community -- possibly eliminating as many as 29,600 truck trips that would otherwise be needed to bring fill from off-site.

An academic building focused on STEAM - science, technology, engineering, arts and math - will be the first to be built on the remediated land and accommodate a growing student body.

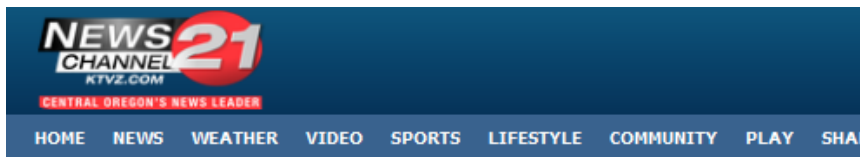
Proposal Overview

- OSU-Cascades requests \$500,000 towards first phase of remediation of the former demolition landfill that will include:
 - excavation of waste
 - sorting/screening of waste and clean fill
 - beneficial reuse of materials
 - recycle metals
 - clean fill utilized as backfill
 - consolidation of materials not acceptable for reuse
- This first phase of remediation will prepare the land for the construction of Academic Building 2 and campus infrastructure, essential for the growth of the university.
- Proposals will be reviewed based on: anticipated outcomes/outputs, community need & engagement, programmatic capacity & past performance, clean up approach + cost estimates.

Deadline: Grant proposal due January 31, 2019, followed by EPA reviews.

Sample Meeting Announcements in Local News

<https://www.ktvz.com/news/osu-cascades-sets-public-meeting-on-proposed-epa-grant/970040108>



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News

OSU-Cascades sets public meeting on proposed EPA grant

Also seeks public comments online

By: KTVZ.COM news sources

Posted: Jan 07, 2019 01:54 PM PST

Updated: Jan 07, 2019 01:57 PM PST



CORVALLIS, Ore. - Oregon State University – Cascades will host a public meeting next week to gather input on a proposal for a federal Environmental Protection Agency brownfields cleanup grant.

The grant proposal seeks funding for the planned remediation of university-owned property, a former Deschutes County demolition landfill.

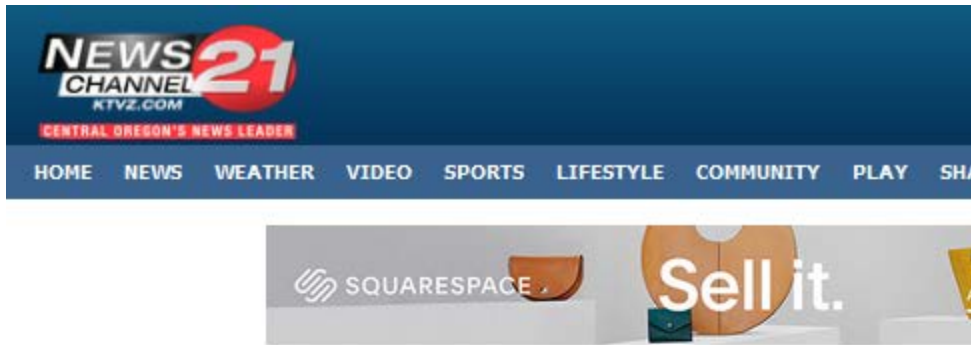
The public meeting will take place from 5:30 to 7 p.m. on Wednesday, Jan. 16 in Tykeson Hall, Room 111 on the OSU-Cascades campus, located at 1500 SW Chandler Ave. in Bend.

Public comment must be submitted at the meeting or in writing by Jan. 22. Written comments can be mailed to: OSU-Cascades, Planning Office, 1500 S.W. Chandler Ave., Bend, OR 97702.

An online comment form is also available at OSUcascades.edu/grantproposal.

Sample Meeting Announcements in Local News

https://www.ktvz.com/news/osucascades-to-hold-public-meeting-on-landfill-plans_20190115033200/975683734



News

OSU-Cascades to hold public meeting on landfill plans

Posted: Jan 14, 2019 09:47 PM PST

Updated: Jan 14, 2019 09:48 PM PST



OSU-Cascades is holding a public meeting Wednesday evening to gather comments on an EPA grant proposal for the cleanup of a former county demolition landfill.

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OSU-Cascades To Apply for EPA Grant

Posted: 2019-01-15 09:06:00 by Danise Lee

BEND, OR — OSU-Cascades is seeking federal funds to help clean up a 72-acre former landfill, to allow for construction of more academic buildings at the Bend campus. Blair Garland, with OSU-Cascades, tells KBND News the university has received \$9.5 million in state money, and they're now hoping to get a grant from the Environmental Protection Agency. "The EPA is going to award around 40 of them around the country, and we'd certainly like some of these federal funds to come here and be applied here in Central Oregon. That'll help us make best use of state funds. And, if we receive the grant, it's going to expand the size of the first phase of remediation, and possible do it faster."

Garland believes the school's proposal is a good fit for the EPA grant committee, "Combining this former landfill and the former pumice mine, which were two sites that were formerly unusable, and bringing those together in order to build a university, which is a benefit to the community. And, it's a way to serve an underserved region with higher education. We think that's going to be one of the most innovative land reclamation stories in the country, so we think we have a good shot." A public meeting will be held Wednesday evening at Tykeson Hall to discuss the EPA application process and get community feedback. That meeting begins at 5:30 p.m.

Even before securing the additional money, Garland says work is already underway at the former demolition landfill, "Right now, we're mostly doing the preparation work, like finalizing testing and planning with contractors. And, we're going to start moving dirt around on the site beginning in the spring, or possibly the summer."



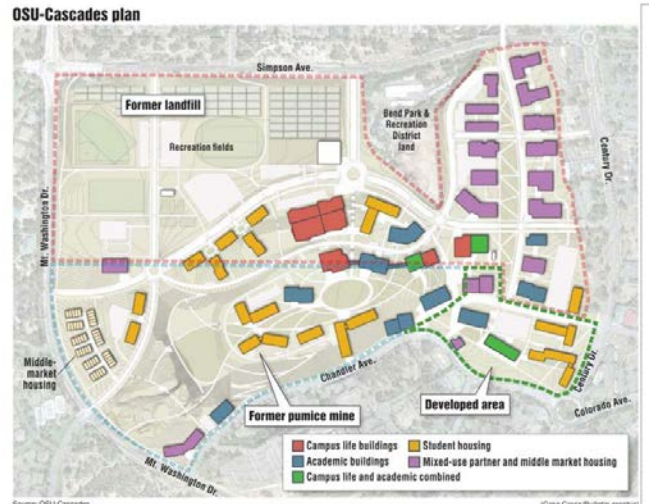
Communications and Public Relations - Page 7 of 10



Published Jan. 16, 2019 at 10:01PM / Updated January 16, 2019 at 11:26PM



Community members and local leaders discuss the future of the OSU-Cascades campus during an open house Wednesday, Jan. 15, 2019. (Jackson Hogan/The Bulletin)



Community shows mostly support for OSU-Cascades expansion OSU-Cascades seeks \$500,000 federal grant to clean up former landfill

Community members and local leaders discuss the future of the OSU-Cascades campus during an open house Wednesday, Jan. 16, 2019. (Jackson Hogan/The Bulletin) 8268907

<https://www.bendbulletin.com/localstate/6853268-151/community-shows-mostly-support-for-osu-cascades-expansion>

Jackson Hogan, The Bulletin @jacksonhogan

From a large auditorium for hosting events to more space for students to study and socialize, community leaders and citizens Wednesday night discussed what Oregon State University-Cascades' expanded campus could look like and how it could integrate into and benefit the Central Oregon community.

The majority of the 20 people present during an open house at the university's Bend campus were encouraged by what they heard.

"We're huge supporters of OSU at St. Charles, and they are our support system," said Lisa Dobey, St. Charles Health System's executive director of community and philanthropy. "We are just so excited about the promises they have going forward to improve our community and enhance our workforce."

The meeting opened with an overview of the university's plans to create a modern, 128-acre campus from land that was once a landfill and a pumice mine as deep as a 10-story building is tall. According to university estimates, realizing that vision could cost \$48.1 million, plus an extra \$4.8 million in expected added costs for inflation, because making the site

construction-ready will take at least 10 years, according to -Kelly Sparks, OSU-Cascades' vice president of finance and strategic planning.

Sparks said the purpose of the evening was to gather feedback from the community about the university's application for a \$500,000 Brownfields Cleanup Grant from the Environmental Protection Agency and to see what role an expanding OSU-Cascades could play in the region.

Various ideas were thrown out for discussion at the meeting.

Deschutes Public Library Director Todd Dunkelberg expressed a desire for a bigger community gathering space for events that could include hosting a popular author. A new building already proposed by OSU-Cascades staff could fill that role.

Brian Fratzke, an executive at the commercial real estate company Fratzke Commercial, said he represents many tech companies that want to expand into Bend but are worried about attracting enough employees with hands-on experience. He believed OSU-Cascades' proposed Innovation District, where the university will partner with private companies to expand student opportunities, could provide a space where these tech companies could help educate local students.

"Where are the 10 computers that we do HTML programming on?" he said. "Where's the biotech area where we get to do genetic testing? That's what we're interested in."

The university's student body president, Rielly King, said the majority of her fellow students agreed that a university expansion is needed, as the current three-building campus is starting to become crowded.

"A lot of times we go to the coffee shop, and there are times where I can't find a seat in the middle of the day," she said. "A lot of (students) have different wants for the campus, but all of them agree that we really do need that new space."

Heather Ficht, executive director of East Cascade Works, a group that helps connect workforces with companies, was very enthusiastic about OSU-Cascades' expansion plans, saying she was "110 percent supportive."

"Anything we can do to support the innovation and great work that (OSU-Cascades) does on this campus to expand and offer more classes and more degree programs, the better we're all going to be," she said.

A few people at the meeting were citizens not representing any group, such as Amy Fratzke, of Bend, who was excited for OSU-Cascades' expansion.

"I think it brings a really nice part to our community, to expand it, to get kids here and grow in a positive way," she said.

According to officials from OSU-Cascades and the -Vancouver, Washington-based engineering firm Maul Foster Alongi, to create a walkable campus from the pumice mine and landfill, the university will use material from the sites to raise the bottom of the 100-foot-deep mine, located alongside Chandler Avenue, by about 40 feet. Stacy Frost, principal engineer with Maul Foster Alongi, said this plan will eliminate the need to bring more than 29,000 truckloads of fill to the southwest Bend campus.

Although the university has asked the state legislature for funds to continue expansion, Gov. Kate Brown's education plan, released in November, didn't guarantee any cash for OSU-Cascades — the education coordinating committee rankings of projects at every Oregon university puts OSU-Cascades' request for \$12 million for a Student Success Center close to the bottom of the list.

Community members are encouraged to submit public comments until Jan. 22 regarding the EPA grant proposal either through mail or an online form at OSU-Cascades' website.

— Reporter: 541-617-7854, jhogan@bendbulletin.com

January 18, 2019

Kelly Sparks
Oregon State University - Cascades
1500 SW Chandler Ave
Bend, OR 97702

Dear Ms. Sparks,

Re: Comments on OSU-Cascades FY19 Proposal for EPA Brownfield Cleanup Grant Proposal

It was a pleasure to engage with other community partners at the recent public meeting discussing future development plans of OSU-Cascades and the need for reclamation of the former demolition landfill site. The High Desert Museum strongly supports OSU-Cascades' application for a FY19 EPA Brownfields Cleanup Grant and the focus on creating an innovation district that fosters partnerships between university, students and community.

The High Desert Museum's mission is to discover the natural world and cultural history of the West's High Desert through artful exhibits, alluring animals, engaging programs and meaningful history. The OSU-Cascades proposal for a Brownfields EPA grant is exciting for many reasons, but in particular, it will aid in the university's plan for an innovation district that directly supports our mission and goals by developing public spaces for the Central Oregon community to engage around art installations and creating experiential spaces to engage families in rich art and culture activities.

Forging a genuine partnership to increase art and learning opportunities in our community, we would be happy to participate on a technical advisory committee, including attendance at meetings, providing guidance and details on local and regional historic art, and will use our communications network as needed to recruit well known artist to participate in campus development. Through these efforts, the High Desert Museum will commit 15 hours of staff time (equivalent to \$825 in kind funds) to the OSU-Cascades brownfield reclamation project.

The remediation of the former demolition landfill is instrumental for the redevelopment of the land, which will spur additional opportunities in the area created by the innovation district. We look forward to working with OSU-Cascades and EPA on this important project for our community and continuing the strong partnership between the Museum and OSU-Cascades that currently exists.

Sincerely,



Dana Whitelaw
Executive Director



East Cascades

WORKFORCE INVESTMENT BOARD

January 21, 2019

Oregon State University - Cascades
Attn: Kelly Sparks
1500 SW Chandler Ave
Bend, OR 97702

Dear Ms. Sparks:

Re: OSU-Cascades grant proposal for the FY19 EPA Brownfield Grant

I was pleased to have the opportunity to attend the OSU-Cascades public meeting on January 16th to hear more about the FY19 EPA Brownfield Grant Proposal. As a local supporter for the growth of this university campus, I have followed the process from inception and watched our community embrace the beautification of a brownfield to the benefits the entire community.

East Cascades Workforce Investments supports this project for the following reasons:

- The expansion of this University will transform our education desert into a thriving community with an educated pool of employable citizens.
- Our Better Together and Youth Career Connect organizations focuses on internships and preparing students for the emergent workforce; the campus can partner in summer programs when dorms are available and provide a college campus experience for our youth.
- It will facilitate a higher and better use of this priority land in the heart of Bend's westside.
- OSU-Cascades will keep the Central Oregon population relevant and thriving; we are home to several tech and entrepreneurial enterprises and the employment opportunities are growing—we need educated people to fill these positions.

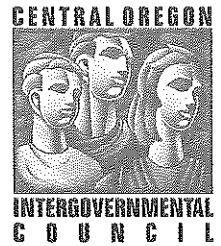
Our organization will be happy to continue to offer advisory oversight and participate in planning sessions and public meetings to support this long-term project. To this end, we will commit 25 hours of staff time (equivalent to \$7,750 in kind funds) to the OSU-Cascades long-term planning project. We look forward to being a small part of the OSU-Cascades success through the assistance of this grant backed by a grateful community.

Sincerely,

Heather Ficht
Executive Director
East Cascades Works
Cell 541.904.5070
heather@ecworks.org

January 24, 2019

Oregon State University – Cascades
Attn: Kelly Sparks
1500 SW Chandler Drive
Bend, OR 97702



*Everywhere
Central Oregon
Works*

RE: Comments on OSU-C FY19 Proposal for EPA Brownfields Cleanup Grant

Dear Ms. Sparks:

Thank you for the opportunity to provide comments on the proposed EPA Brownfields Cleanup Grant. The Central Oregon Intergovernmental Council (COIC) strongly supports OSU-Cascades' proposal for a US EPA Cleanup Grant and is excited to be included as a community partner in this effort.

COIC is the council of governments for Central Oregon, organized under ORS 190. COIC's mission is to "serve the local governments of Central Oregon, providing regional collaboration, efficiencies, and service delivery for a strong local economy and quality of life." We are served by a 15-member Board of Directors composed of elected officials from Crook, Jefferson and Deschutes counties, the eight incorporated cities of Central Oregon, a Warm Springs Tribal Council member, and three additional private sector appointed representatives.

COIC is responsible for developing a Comprehensive Economic Development Strategy (CEDS) for Central Oregon every five years. The CEDS reflects the region's community and economic development priorities, as identified through an extensive public and stakeholder process. COIC's last CEDS, adopted in August 2017, identified the expansion of OSU-Cascades as a top regional priority.

The reclamation of the 72-acre landfill and the resulting investment in public infrastructure and public/private partnerships is critical to revitalization of this area. We believe this investment will: remediate a large contaminated site for a higher use, provide walk-able/ bike-able connections across a currently inaccessible section of the west-side of Bend, create innovative partnerships for strengthened economic diversity, evaluate strategies for energy reuse of landfill materials, and encourage infill development in support of smart growth goals.

COIC works regularly with OSU-Cascades and we have a well-established relationship that will be further leveraged through this project. We will be represented on a technical advisory committee and will continue to align this work with the CEDS.

We are optimistic about this grant opportunity and look forward to working with OSU-Cascades to transform the area into productive uses for our community.

Sincerely,

Tammy Baney,
Executive Director

334 NE Hawthorne Avenue, Bend, OR 97701
(541) 548-8163 — Fax: (541) 923-3416

Office Locations: Bend, Klamath Falls, Lakeview, La Pine, Madras, Prineville, Redmond

January 28, 2019

Kelly Sparks
Oregon State University - Cascades
1500 SW Chandler Ave
Bend, OR 97702

Dear Kelly Sparks,

Re: OSU-Cascades proposal for FY19 EPA Brownfield Cleanup Grant Proposal

Fratzke Commercial Real Estate Advisors, Inc. has worked in the Central Oregon region consulting within the commercial real estate sector. Through this period we have seen the economic recession devastation of ten years ago through to today's challenges associated with high economic growth.

We enthusiastically support OSU-Cascades' application for a FY19 EPA Brownfields Cleanup Grant. The plan for OSU-Cascades to turn a brownfield into a thriving innovation district will act as a force multiplier for Bend's economic growth by providing space for companies while training the workforce of tomorrow at OSU-Cascades.

We are happy to partner with OSU-Cascades and provide professional expertise in commercial real estate development, market analysis of leasing commercials spaces and proforma analysis. In the January 16th public information meeting regarding the EPA Brownfield Cleanup Grant, I suggested that an advisory committee be formed. Such a committee should be comprise of a broad group of people that have worked through similar development challenges in the years prior to Bend's rapid growth, selecting professionals from the financial sector and various other economic clusters. Fratzke Commercial Real Estate Advisors would happily support OSU-Cascades and serve in such an advisory capacity by committing 15 hours of consulting (equivalent to \$3750 in kind funds) to the OSU-Cascades brownfield reclamation project.

It was great to take part in this meeting that brought together so many businesses, organizations and community leaders. I look forward to participating in the future development of OSU-Cascades as we discuss next steps.

Sincerely,

DocuSigned by:

Brian Fratzke

1/28/2019 | 3:39 PM PST

C22FBAEF53C246F...

Brian E. Fratzke

Fratzke Commercial Real Estate Advisors, Inc.

541-306-4948

brian@fratcommercial.com



777 NW Wall St. Ste. 200
Bend, OR 97703
www.bendchamber.org
(541) 382 - 3221

January 24, 2019

Kelly Sparks
Associate Vice President, Finance & Strategic Planning
Oregon State University - Cascades
1500 SW Chandler Ave
Bend, OR 97702

Dear Kelly,

The Bend Chamber of Commerce is excited to be a community partner and support OSU-Cascades' application for the FY19 EPA Brownfields Cleanup Grant. The remediation of the landfill is instrumental in the future development of OSU-Cascades, particularly the proposed innovation district and mixed-use areas.

The Bend Chamber strives to gather, equip and mobilize our business community to drive a prosperous economy and unmatched quality of life. Our mission is to create resources and opportunities for member success, quality of life, engagement and meaningful impact. Among our top priorities is a strong, educational system that supports Central Oregon's future workforce needs. The OSU-Cascades proposal for a Brownfields EPA grant can help OSU-Cascades continue to fulfill this need.

This grant application is exciting for many reasons, but in particular, it directly supports 1) revitalizing derelict land for beneficial use, in turn, creating new economic opportunities in the project area and 2) expansion of a university campus that offers professional and high tech degrees will infuse the region with a high-caliber workforce to support the region's need for a more diversified economy. The Bend Chamber is actively involved in efforts such as these to provide a stable, vibrant business community in Bend. We would be happy to participate in a technical advisory committee to provide guidance and support, and will use our communications network as needed to distribute information on the project and plan. Through these efforts, the Bend Chamber will commit 10 hours of staff time (equivalent to \$1,000 in kind funds) to the OSU-C brownfield area-wide plan project.

We look forward to working with OSU-Cascades and EPA on this important project for our community.

Sincerely,

Katy Brooks
CEO/President, Bend Chamber of Commerce
541-382-3221
katy@bendchamber.org



TECHNOLOGY
ASSOCIATION
OF OREGON

January 22, 2019

Kelly Sparks
Oregon State University - Cascades
1500 SW Chandler Ave
Bend, OR 97702

Dear Kelly Sparks,

Re: Comments on OSU-Cascades FY19 Proposal for EPA Brownfield Cleanup Grant Proposal

The Technology Association of Oregon strongly supports OSU-Cascades' application for a FY19 EPA Brownfields Cleanup Grant.

With over 400 members, The Technology Association of Oregon unites the region's technology industry through advocacy, networks, events, resources, and more. The OSU-Cascades proposal for a Brownfields EPA grant provides an exciting opportunity for our organization because it will turn an unusable landfill into a vibrant innovation district that supports technology companies in Central Oregon. The innovation district will provide much needed space for companies and provide a hub where we can train our local workforce. It will allow these companies to grow in Bend instead of moving to Portland, Seattle, or other cities in search of facilities and talent.

Currently, the Technology Association of Oregon partners with the startup incubator program at OSU-Cascades, and plans to expand our partnership by serving on a technical advisory committee. Through this committee, we will participate in campus development, drive corporate partnerships, and act as a company liaison to grow new relationships in the innovation district. Through these efforts, the Technology Association of Oregon will commit 15 hours of staff time to serve in an advisory capacity (equivalent to \$550 in kind funds) to the OSU-Cascades brownfield reclamation project.

Thank you for the opportunity to participate in the future development of OSU-Cascades at the public meeting for the reclamation of the landfill site. We look forward to working with OSU-Cascades and EPA on this important project. In the future.

Sincerely,

A handwritten signature in blue ink, reading "Teri Hockett".

Teri Hockett
VP, Central Oregon
Technology Association of Oregon
925.785.1600
Teri.hockett@techoregon.org



2500 NE Neff Road
Bend, Oregon 97701
541.382.4321
www.stcharleshealthcare.org

January 24, 2019

Oregon State University - Cascades
Attn: Kelly Sparks
1500 SW Chandler Ave
Bend, OR 97702

Subject: OSU-Cascades –Application for FY19 EPA Brownfields Cleanup Grant

Dear Kelly,

Thank you for hosting a public meeting to discuss workforce development and OSU-Cascades. I especially appreciated education on the remediation process OSU-Cascades will undertake as the campus expands and, based on that, support your application for the FY19 EPA Brownfields Cleanup Grant. St. Charles will commit 15 hours of staff time (equivalent to \$750 in-kind funds) to support the OSU-Cascades project by serving in an advisory capacity for development of the proposed innovation district.

St. Charles Health System's vision is creating *America's healthiest community, together*. As the largest employer in Central Oregon, St. Charles supports and invests in the success of OSU-Cascades. We know OSU-Cascades plays a critical role in educating the workforce we need to continue to march toward our vision.

The OSU-Cascades proposal for an EPA grant is exciting for many reasons, but in particular, it directly supports our work by enabling the university to continue to expand professional and high-tech degrees that will infuse the region with a high-caliber workforce. Additionally, St. Charles' employees have post-baccalaureate needs such as micro-credential certifications that OSU-Cascades can provide.

From a workforce lens, this grant will expedite the process needed to get the campus on track to benefit growing employment opportunities in Central Oregon. We look forward to working with OSU-Cascades and the EPA on this important project for our community.

Sincerely,



Lisa Dobey
Executive Director, Community and Philanthropy
St. Charles Health System
530-580-8020
ladobey@stcharleshealthcare.org



January 21, 2019

Kelly Sparks
OSU-Cascades
1005 SW Chandler Avenue
Bend, OR 97702

Dear Ms. Sparks:

RE: OSU-Cascades FY19 EPA Brownfield Cleanup Grant Proposal

Deschutes County strongly supports OSU-Cascades' application for a FY19 EPA Brownfields Cleanup Grant. As prior owners of the landfill properties, the County has long desired to see the land redeveloped for higher and better uses, which will be instrumental in the future mixed-use redevelopment of the central westside of Bend. In 2013, Deschutes County received a \$400,000 US EPA Community-Wide Assessment Grant to stimulate the cleanup and reuse of properties that are, or may be affected by hazardous substances. The Brownfields Cleanup grant for OSU-Cascades would continue the regional efforts to reclaim the area for healthier communities and economies.

The County continues its support of the proposed project for many reasons, including:

- It provides a linkage between plans and implementation, making redevelopment a reality.
- It supports City planning efforts within the project area, focusing on mixed-use redevelopment of this "Opportunity Area."
- Mixed-use redevelopment on the landfill and in the project area supports the goal of reducing vehicle trips in the area.
- It will facilitate a higher and better use of this priority land in the heart of Bend's westside.
- It will involve significant community engagement to determine needs and desires of the community around the site, for integration into strategic partnerships and financial solutions to bring the project to fruition.
- Redevelopment of the landfill will create public linkages across the property, which is currently closed to all public use.

After learning about the development of a technical advisory committee during the January 16th public meeting, the County will be happy to provide an official to serve on this important committee. Participation could include involvement in meetings, providing information on the history of the landfill and support for long-term visioning. The County will commit 25 hours of staff time (equivalent to \$2,600 in kind funds) to the OSU-Cascades brownfield area-wide plan project. We look forward to working with OSU-Cascades and EPA on this important project.

Sincerely,

Phil Henderson
Commissioner
541-388-6569, phil.henderson@deschutes.org

Tom Anderson
Deschutes County Administrator
541-388-6565, tom.anderson@deschutes.org

January 25, 2019

Kelly Sparks
Oregon State University - Cascades
1500 SW Chandler Ave
Bend, OR 97702

Dear Ms. Sparks,

Re: Comments on OSU-Cascades FY19 Proposal for EPA Brownfield Cleanup Grant Proposal

Thank you for the opportunity to engage with other community members during the recent public meeting in discussion of reclamation of the former demolition landfill site and future development on the OSU-Cascades campus. Deschutes Public Library strongly supports OSU-Cascades' application for a FY19 EPA Brownfields Cleanup Grant and the focus on creating an innovation district that fosters partnerships between university, students and community.

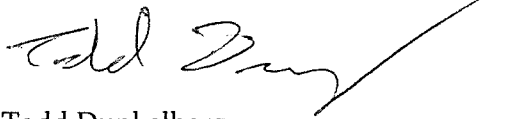
Deschutes Public Library is approaching its 100th birthday and we have been working to develop a vision for the future and plans for vibrant and sustainable communities. Working together with projects such as the development of OSU-Cascades mixed-use space supports our desire to create a community platform of lifelong learning. We are excited to explore the possibilities of community programs where Deschutes Public Library can partner with OSU-Cascades in the proposed innovation district. This community space will provide a unique opportunity for the community to connect over diverse interest.

In addition, the large capacity assembly hall in the proposed development area could be used for both student and large community events, filling a void that our Central Oregon community is experiencing. A space of this size would be a valuable resource to Deschutes Public Library and could be utilized to bring in well-known author presenters and host large scale conferences. Such resources would complement the existing plans of Deschutes Public Library and expand the opportunities available in our growing community.

Deschutes Public Library is committed to our long-standing relationship with the university to increase the learning opportunities in our community, we would be happy to participate on a technical advisory committee, including attendance at meetings, providing guidance, and input on public interest. Through these efforts, Deschutes Public Library will commit 15 hours of staff time (equivalent to \$900 in kind funds) to the OSU-Cascades development project.

We look forward to working in partnership with OSU-Cascades on this important project for our community.

Sincerely,

A handwritten signature in black ink, appearing to read "Todd Dunkelberg", with a long, sweeping horizontal stroke extending to the right.

Todd Dunkelberg
Director
Deschutes Public Library
507 NW Wall Street
Bend, Oregon 97703

(541) 312-1021 phone
toddd@deschuteslibrary.org



**REGIONAL SOLUTIONS OFFICE
GOVERNOR KATE BROWN**

January 14, 2019

Oregon State University - Cascades
Attn: Kelly Sparks
1500 SW Chandler Drive
Bend, OR 97702

Re: Comments on OSU-C FY19 Proposal for EPA Brownfields Cleanup Grant

Dear Ms. Sparks:

Thank you for the invitation to the community meeting on January 16. Due to prior commitments, I am not able to attend the meeting, but am pleased to provide comments and strong support for your proposal for an EPA Brownfields Cleanup Grant. The Central Oregon Regional Solutions Committee strongly supports OSU-Cascades' proposal for a US EPA Cleanup Grant and is excited to be included as a community partner in this effort.

Regional Solutions is a state-established innovative, collaborative approach to community and economic development in Oregon. Starting at the local level to identify priorities, each center works from the bottom up to solve problems and complete projects. The Regional Solutions Centers integrate agency work and funding to ensure that projects are finished as quickly and as cost-efficient as possible. The Central Oregon Regional Solutions team includes representatives from Business Oregon, Oregon DEQ, Housing & Community Services, Dept of Land Conservation & Development, Oregon Dept of Transportation, and Oregon Dept of Energy. The Regional Solutions Team works with an Advisory Committee comprised of local government, private sector, higher education and philanthropic leaders. The committee identifies community and economic development priorities for the region and looks for opportunities to leverage resources to complete priority projects. The committee unanimously supports OSU Cascades as the highest priority for Central Oregon. The grant proposal for expanded landfill remediation and redevelopment directly supports the established Regional Solutions goals, including: expansion of OSU-Cascades, increasing workforce housing and integration of workforce training opportunities.

The redevelopment of the landfill for university and public/private purposes is instrumental in the future redevelopment of the central westside of Bend. The reclamation of the 72-acre landfill and the resulting investment in public infrastructure and public/private partnerships is critical to revitalization of this area as it will: remediate a large contaminated site for a higher

use, provide walkable/ bikeable connections across a currently inaccessible and unsafe section of the westside of Bend, create innovative partnerships for strengthened economic diversity, evaluate strategies for energy reuse of landfill materials, and encourage infill development in support of smart growth goals.

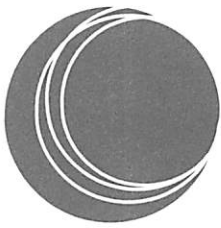
The Regional Solutions Committee and Team work regularly with OSU-Cascades and have a well-established relationships that will be further leveraged through this project. We will be represented on a technical advisory committee and will provide guidance on agency coordination, as well as use our agency communications network as needed to distribute project information to necessary departments.

The acquisition of this grant is critical to the community for redevelopment of the Demolition Landfill and the project area. We look forward to working with OSU-Cascades to transform the area and reclaim the landfill for productive uses for our community.

Sincerely,

A handwritten signature in blue ink that reads "Michael P. Hollern". The signature is fluid and cursive, with the first name "Michael" being the most prominent part.

Michael P. Hollern, Governor's Convener
Chairman of the Board, Brooks Resources



CENTRAL OREGON
community college

OFFICE OF THE PRESIDENT
541.383.7201
smetcalf@cocc.edu

January 25, 2019

Oregon State University - Cascades
Attn: Kelly Sparks
1500 SW Chandler Avenue
Bend, OR 97702

Re: OSU-Cascades FY19 Proposal for EPA Brownfield Cleanup Grant

Dear Kelly:

Thank you for inviting Central Oregon Community College (COCC) representatives to participate in the January 16th community meeting regarding your proposal for the EPA Brownfields Cleanup Grant. As a longtime partner in higher education services in Central Oregon, COCC strongly supports OSU-Cascades' grant application for the remediation of the former demolition landfill. OSU and COCC are key anchors on the west side of Bend, providing higher educational services to the region. The reclamation project enables future development of an innovation district with community amenities and further expands the educational and economic benefits to Central Oregon.

The 17 year COCC and OSU-Cascades partnership has been a significant benefit to our students and faculty, as we work together to offer creative solutions for students to reach their educational goals. COCC is excited to continue this collaboration, expanding opportunities for both our institutions as OSU-Cascades campus grows. The educational and transportation connections between the COCC Bend Campus and OSU-Cascades' campus will remain important, especially to students, as they access courses in both locations and have opportunities to live in either location. The remediation of the landfill for OSU-Cascades campus expansion is also an exciting opportunity for the community, as the redevelopment of the area will bring a wealth of economic renewal to the project area.

We are eager to participate in the progress of this project, and when able, have representation at meetings; offering input when appropriate and working with OSU-Cascades to make this important project a reality for our community.

Sincerely,

Dr. Shirley I. Metcalf
President

Central Oregon Community College



2804 SW Sixth Street, Redmond, Oregon 97756 / p 541.693.5600 f 541.693.5601 / www.hdesd.org

January 22, 2019

RE: Public Comment on OSU Cascades EPA Grant Application to Begin Remediation of Former Demolition Landfill

Having attended the recent public meeting regarding OSU Cascades EPA FY19 Brownfield Cleanup Grant Proposal, I am writing in support of full funding of the \$500,000 request towards the first phase of remediation of the former demolition landfill. This first phase of remediation will prepare the land for construction of a second academic building and other campus infrastructure vital for OSU Cascades expansion efforts. Timely expansion of OSU-Cascades is one of the highest priorities for advancing educational attainment in our region.

I am the recently retired Superintendent of the High Desert Education Service District, and I am speaking for the Superintendents of every school district and ESD in Central Oregon. As educational leaders, we know the impact that a college degree has on economic and social well-being. On average, bachelor degree holders earn nearly twice that of high school graduates, and are half as likely to be unemployed. As the future parents of students that we will see in our K-12 schools, they will also be more involved in their child's education, and less likely to be a drain on our state's social services.

Knowing the importance of higher education, we are very concerned that Central Oregon is extremely underserved for the size of our region. Not only are we the fastest-growing region of the state in population, we are also the fastest growing in K-12 enrollment. Without additional capacity at OSU-Cascades, our future graduates will not have access to a nearby university. For many of our low income, first generation, underrepresented, and rural students, this access to a nearby university is critical in their decision of whether or not to go to college. We are working hard to improve the college-going culture of our students, and it would be for naught if there were not capacity for them in our region.

We meet monthly with the leaders of OSU-Cascades and Central Oregon Community College in order to work collaboratively on education initiatives for Central Oregon. For example, K-12 education leaders in the region have worked with OSU Cascades to develop a modern teacher preparation program based on the research-based "co-teaching" model. In addition, OSU Cascades has developed a top-notch counseling preparation program, which helps meet the need for more counselors in the region and across the state.

OSU Cascades has also partnered with the local school district to site a future learning center on the campus expansion, which would allow for the development of a pre-school and elementary school. This potential partnership would serve local children and families, as well as provide a learning setting for teacher and counselor candidates attending OSU Cascades.

I know that the resources and you are facing difficult choices, but supporting in higher education in Central Oregon through this grant will be an investment in the future. I ask you to support the full funding request and invest where the return is the greatest.

Sincerely,

A handwritten signature in black ink, appearing to read "J M Rexford". The signature is stylized with a large, looped "J" and "R".

John M. Rexford, Superintendent – Retired
On Behalf of Central Oregon K-12 and ESD Superintendents

United States Senate

WASHINGTON, DC 20510

January 29, 2019

Rebecca Johnson, Vice President
Oregon State University-Cascades
1500 SW Chandler Ave
Bend, OR 97702

To Vice President Johnson:

I am writing to express my support for Oregon State University-Cascades' application for the EPA's Brownfields Cleanup grant. This grant will play a vital role in supporting an innovative remediation proposal that will improve the land and help the University expand access to higher education in Central Oregon.

As you may know, OSU-Cascades is located in Bend, OR, and is the newest public university in the state. It is a great asset to the community and helps improve access to higher education in a part of the state that has historically been underserved by four-year teaching institutions. It currently sits on 10 acres of land next to an old pumice mine and a former demolition landfill.

The University plans on expanding over the next 10 years to bring on more students. However, in order to meet that goal, it needs to fill in the pumice mine and clean up the landfill. The University has developed an innovative, three-phase remediation plan that calls for reusing material from the landfill to grade and fill up the pumice mine. By using the materials in the landfill, the University estimates that it can eliminate the need for 29,600 dump trucks trips through Bend to provide the required fill material.

The EPA Brownfields Cleanup grant will play a vital role in helping the University excavate and sort the landfill waste to find material that can safely fill the pumice mine, while at the same time consolidating hazardous material that needs to be removed. The state of Oregon has already provided \$9 million for the first phase of this project and the funding from the Brownfield Cleanup grant allows for several more acres to be completed during the project that would otherwise be worked on during phase two.

These additional acres of fill material provide an opportunity for the University to begin construction on new academic buildings that would otherwise have to wait until the second phase of remediation is completed. With this grant, OSU-Cascades is eager to forward with its innovative remediation proposal and begin expanding its campus.

Thank you for your full and fair review of this application. Should you have any further questions, please contact BJ Westlund in my Bend office at 541-318-1298.

Sincerely,



Jeffrey A. Merkley
United States Senator

Submitted Time	First Name	Last Name	Email Address	Street Address, City, State, Zip Code	1. Draft Analysis of Brownfield Cleanup Alternative (ABCA) including site issues, cleanup standards/laws, cleanup alternatives, and/or proposed cleanup.	2. Proposed cleanup tasks.	3. Recommendations for community partners to involve in cleanup, how to engage them and utilize their expertise.	4. Your interest in staying engaged in this project.
1/7/2019 17:29	(b) (6)	(b) (6)	(b) (6)	(b) (6)	I lived across the street from this landfill for 10 years. There were times when the dust was blowing so thick it looked like I was living in the Dust Bowl. Some day the dust would be a 1/4" thick on my doorstep. This was an otherwise great location to live, with easy access to everything that makes Bend a good place to live. When the landfill was closed condition improved, but the visual blight of the brownfield still existed. This is one of the most valuable locations in the state for the same reasons that I moved there. Remediation of the land will be one of the most beneficial projects in Central Oregon. It won't be easy since there are known toxins and other hazards buried there. In the early 90s a boy was investigating some smoke whiffing up from the ground and he fell into a pocket of smoldering wood waste. He sustained severe burns and soon after Mt Bachelor stopped using this land for a bus stop. Removing these hazards must be a prime goal before the property can be used.	Along with removing hazards the land should be returned to a natural grading. Now there are berms and a deep pit. These do not have an aesthetic appeal. OSU-C could become a highly desirable university and the campus should look inviting. A smoother grade will also make access easier to meet ADA requirements.	As you know the folks living in Broken Top have issues with the campus location. We don't need more court battles, so please engage this community from the start and emphasize the improved aesthetic appeal that this project will bring. Make sure that there will be some benefit to local residents like a pocket park or other amenities.	I don't need to be involved with this project directly, but please use the media to keep me well informed.

1/8/2019 9:01	(b) (6)	(b) (6)	(b) (6)	(b) (6)	You pushed this plan with no regard to public input all the while stating your grand plan of fixing everything and being a community "partner" , now you want the taxpayers to pay for the incompetence of the decision to put your university in a completely disastrous location for the community as a whole.	Clean up your own mess, you bought the land fully knowing it needed to be cleaned up before any construction could occur, now you want taxpayers to pay for your institutions incompetence.	you never listened to the community, why should any community organization help you pay the bill for your incompetence and simply wanting a shiny place on the West side of Bend.	Community involvement has gone no where, you rammed what you want through with empty promises to justify your lack of caring about anything more that a shiny West side location to drive up enrollment for a college offering worthless degrees in "outdoor" stuff any high school student with a summer job could handle simply to cash in on the outdoor recreation market.
1/9/2019 5:31	(b) (6)	(b) (6)	(b) (6)	(b) (6)	Minimize any air pollution that would affect air quality during the excavation phase. All trucking needs to have covers over its beds. In addition, nearby streets that will have truck traffic need to be cleaned daily to remove debris from exiting the site. Air sampling stations should be established in areas adjoining the site. Any encapsulation of debris on the site for long term purposes should exceed industry and government standards.	Remove from the site ALL debris or materials or chemicals that would negatively impact the groundwater. The ground is very porous which is problematic for toxins getting into the groundwater. Bend sources part of it drinking water from groundwater and this may increase due to the effects of climate change. In addition, remove from the site ALL TIRES and DO NOT reuse them as fill.		

1/19/2019 11:12	(b)		(b) (6)	(b) (6)	<p>The Draft Analysis is a comprehensive look at the clean up activities associated with the new OSU Cascades campus. The analysis clearly shows the enormity of the task of evaluating previous uses at the campus site and the work to appropriately deal with degradable and non-degradable materials. The paper demonstrates that the work proposed is consistent with Oregon DEQ requirements. This analysis can support the application for the Brownfields Cleanup Grant from EPA.</p>	<p>The three alternative scenarios for clean up with costs show the intersection of time, cost and quality of work. In each scenario, the trade offs are clear. Alternative #2 at \$53 million is likely the most responsive to regulations, community concerns and project completion timeline.</p>	<p>Obviously the biggest community partner in this project is Bend Parks and Recreation, which also shares the site. They have an excellent history of building projects for the community in an environmentally-sustainable way with good results. Other community partners would include Century West Community Association and the Broken Top Community Association, both of whom would be involved in communicating with neighbors about the clean up. Century West and Northwest Crossing business communities would be involved in supporting the workforce needed for the clean up. Heart of Oregon Corps Youth Build program could also be engaged with contractors to develop the next generation of skilled workforce for construction projects in Central Oregon. Heart of Oregon Corps Americorps, Youth Conservation Corps could also be involved on site wide clearing and replanting. Other community partners such as Visit Bend and the Bend Chamber of Commerce could help bolster vision of Bend as a true four year college campus community.</p>	<p>I am a neighbor of the campus living just a few hundred yards from the Simpson and Mt. Washington Drive intersection. I am member of the Board of Directors of the Heart of Oregon Corps. http://hearttoforegon.org/</p>
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EPA Cleanup Grant Proposal: OSU-Cascades' Response to Community Comments from 1/16/19 Community Meeting

Commenter, Date	Comments	OSU-C Response
(b) (6), 1/7/19, online form	<ol style="list-style-type: none">1. Management of dust and release of hazardous materials during construction important.2. Important to remove all hazards from property.3. Natural grading desired.4. Engage Broken Top neighborhood early.	<ol style="list-style-type: none">1. Remediation will be conducted with DEQ oversight, with requirements for dust and waste control. Specific procedures will be in place for safe management of any excavated hazardous material.2. The remediation plan includes full removal of waste from Cells 1 and 2, including areas of pyrolysis.3. The master plan includes a grading plan for the full campus build out that minimizes.4. Broken Top is part of Century West Neighborhood Association and OSU-Cascades has a representative on the board to provide regular updates. We are happy CWNA has agreed to join the TAC!
(b) (6), 1/8/19, online form	<ol style="list-style-type: none">1. Public input was not considered in the university plan.2. Tax dollars should not be used to pay for remediation as OSU-C knew remediation was necessary before acquiring the land.3. Expressed concern for quality of degrees offered.	<ol style="list-style-type: none">1. OSU-Cascades has hosted over 30 community meetings with a combined attendance of 1,489, gathering input on health/wellness, arts/culture, community integration, partnerships, campus layout, sustainability, connectivity, etc. Community input led to the acquisition of the landfill, to develop a 128-acre campus, rather than only a 56-acre campus, based on the community partnerships and amenities it would provide. OSU-Cascades will continue to engage with the community regularly.2. OSU-Cascades is a state university, reliant on state funding. It has been clear from the onset of the landfill due diligence that all funding strategies will be necessary - state, federal, private and philanthropic. OSU-Cascades is dedicated to creating innovative financing strategies to diversify the sources. The EPA Cleanup Grant will expedite Phase 1 remediation, which will create opportunities sooner for public-private partnership strategies.3. OSU-Cascades offers 17 majors, almost 30 minors and options, and 3 graduate programs, with additional programs in development. New academic programs are offered in response to student interest and community workforce needs. Computer Science, Hospitality Management and Elementary Education are examples that meet specific needs of Central Oregon employers.
Anonymous, 1/9/19, online form	<ol style="list-style-type: none">1. Management of air quality during excavation.2. Maintenance of streets during construction.3. Long term encapsulation of debris on site.	<ol style="list-style-type: none">1. Remediation will be conducted with DEQ oversight, with requirements for dust and waste control.2. The construction plan will be developed to minimize impacts to local streets, including maximizing material reuse onsite to limit trucking offsite.3. Specific procedures will be in place for safe management of any excavated hazardous material and stockpiled debris/soil.

(b) (6), 1/19/19, online form	<ol style="list-style-type: none"> 1. ABCA and proposal are comprehensive. 2. ACBA alternative #2 for full cleanup of Cells 1 and 2 is most responsive to regulations, community concerns, and schedules. 3. Partners should include BPRD, Century West Neighborhood Association, Broken Top Community Association, Heart of Oregon Corps Youth Build, Visit Bend, Bend Chamber 	<ol style="list-style-type: none"> 1. Thank you. 2. This is OSU-Cascades' preferred alternative. Thanks for the confirming comment. 3. Thanks for the thorough list; Century West Neighborhood Association and Bend Chamber have both agreed to serve as community partners. We will continue to coordination regularly with BPRD on trail and open space connectivity.
Dana Whitelaw, High Desert Museum, 1/18/19, letter	<ol style="list-style-type: none"> 1. EPA Grant will aid in development of the Innovation District, which directly supports High Desert Museum's mission by developing public spaces for the community to engage around art and experiential spaces. 2. Remediation is crucial to spur opportunities for redevelopment in the area. 3. Would like to participate on a TAC. 	<ol style="list-style-type: none"> 1. Thank you. OSU-Cascades embraces the opportunity to work with the community to develop spaces for rich art and cultural activities. We look forward to working with you. 2. We agree and will continue to work tirelessly to reclaim the land for innovative redevelopment. 3. Great! We look forward to continued coordination with our community partners for the grant project and entire redevelopment.
Heather Ficht, East Cascades Works, 1/21/19, letter	<ol style="list-style-type: none"> 1. University expansion will transform community through much needed workforce development. 2. Consider use of dorms during summer months for community programs. 3. Remediation/redevelopment of landfill will facilitate a higher and better use of this priority land. 4. Would like to participate on a TAC. 	<ol style="list-style-type: none"> 1. With an expanded campus through landfill remediation, OSU-Cascades is excited to expand its programming to create significant workforce development opportunities. 2. OSU-Cascades has partnered with programs for dorm usage in the summer and will consider it in future years. 3. We are excited to see this blighted property put to long term use, for the economic & education benefit of the community and region. 4. Great! We look forward to continued coordination with our community partners for the grant project and entire redevelopment.
Tammy Baney, Central Oregon Intergovernmental Council, 1/24/19, letter	<ol style="list-style-type: none"> 1. The Comprehensive Economic Development Strategy (CEDS) for Central Oregon, adopted in 2017, identified expansion of OSU-Cascades as a top regional priority. 2. Landfill remediation critical to revitalization of area as it will create innovative partnerships, walkable/bikeable connections, provide energy strategies, and encourage infill development. 3. Would like to participate on a TAC. 	<ol style="list-style-type: none"> 1. Thank you. OSU-Cascades agrees that landfill remediation is the critical next step toward revitalization of the area. 2. We look forward to returning a blighted property into useable land for public benefit through partnerships and community connections. 3. Great! We look forward to continued coordination with our community partners for the grant project and entire redevelopment.
Brian Fratzke, Fratzke Commercial Real Estate, 1/28/19, letter	<ol style="list-style-type: none"> 1. Landfill remediation and redevelopment as an innovation district will be a "force multiplier" for economic growth by providing innovation space and workforce training. 2. Would like to participate on a TAC. 	<ol style="list-style-type: none"> 1. Thank you for participating in the community meeting. The OSU-Cascades team is focused on near term remediation of the landfill through the first phase and is also excited that the EPA grant could expedite the remediation of part of the Innovation District area. 2. Great! We look forward to continued coordination with our community partners for the grant project and entire redevelopment.
Katy Brooks, Bend Chamber of Commerce, 1/24/19, letter	<ol style="list-style-type: none"> 1. Chamber's top priority is a strong education system to support Central Oregon's workforce needs. Remediation and redevelopment of the landfill are 	<ol style="list-style-type: none"> 1. OSU-Cascades is committed to providing innovative solutions to workforce development challenges in this region. The EPA Cleanup Grant will expedite the development of the Innovation District and associated funding

	<p>key to creating the Innovation District, which will provide opportunities for significant workforce development.</p> <p>2. Would like to participate on a TAC.</p>	<p>opportunities, including public-private partnerships.</p> <p>2. Great! We look forward to continued coordination with our community partners for the grant project and entire redevelopment.</p>
Teri Hockett, Technology Association of Oregon, 1/22/19, letter	<p>1. Remediation of landfill imperative for redevelopment as an innovation district, key to training local workforce and retaining technology companies in Central Oregon.</p> <p>2. Would like to participate on a TAC.</p>	<p>1. OSU-Cascades is committed to providing innovative solutions to workforce development challenges in this region. The EPA Cleanup Grant will expedite the development of the Innovation District and associated funding opportunities, including public-private partnerships.</p> <p>2. Great! We look forward to continued coordination with our community partners for the grant project and entire redevelopment.</p>
Lisa Dobey, St. Charles Health System, 1/24/19, letter	<p>1. EPA Grant important to expedite campus expansion, which will facilitate expansion of professional and high-tech degrees, as well as needed post-baccalaureate needs such as micro-credentialing.</p> <p>2. Would like to participate on a TAC.</p>	<p>1. OSU-Cascades looks forward to working with you and the TAC. We are excited to learn more about your workforce and micro-credentialing needs.</p> <p>2. Great! We look forward to continued coordination with our community partners for the grant project and entire redevelopment.</p>
Phil Henderson, Tom Anderson, Deschutes County, 1/21/19, letter	<p>1. In 2013, County received an EPA Areawide Assessment Grant to stimulate cleanup/reuse of blighted properties, including the landfill. A Cleanup grant would continue regional efforts to reclaim the area for healthier communities and economies.</p> <p>2. Redevelopment will support City planning efforts for mixed use, facilitate better use of land, and create public linkages/connectivity not currently available.</p> <p>3. Would like to participate on a TAC.</p>	<p>1. Thank you. The results of the EPA assessment grant informed the due diligence and other environmental processes that lead to the OSU-Cascades' plan to redevelop the landfill.</p> <p>2. These are all central goals of the OSU-Cascades master plan.</p> <p>3. Great! We look forward to continued coordination with our community partners for the grant project and entire redevelopment.</p>
Todd Dunkelberg, Deschutes Public Library, 1/25/19, letter	<p>1. EPA Grant important to advancing the development of the Innovation District.</p> <p>2. An assembly hall would fill a void in the community for large community events.</p> <p>3. Would like to participate on a TAC.</p>	<p>1. The EPA Cleanup Grant will expedite the development of the Innovation District and associated funding opportunities, including public-private partnerships.</p> <p>2. The assembly hall is currently planned in the location that would be remediated with the EPA Cleanup Grant, which would expedite the availability of this land for development, in turn, making it available for public use sooner.</p> <p>3. Great! We look forward to continued coordination with our community partners for the grant project and entire redevelopment.</p>
Senator Jeff Merkley, US Senate, 1/29/19, letter	<p>1. EPA Cleanup Grant is essential to expediting the remediation of Innovation District land, leveraging the \$9M in committed State funding to improve access to higher education.</p>	<p>1. Thank you. OSU-Cascades is excited to possibly expand Phase 1 remediation with an EPA Cleanup Grant, expediting the availability of development-ready land for campus expansion.</p>



EPA Brownfield Grant Proposal Community Meeting January 16, 2019

Executive Summary

A community meeting to discuss the EPA Brownfield Grant Proposal was held at Tykeson Hall, OSU-Cascades, at 5:30pm on January 16, 2019. This meeting convened business and community leaders from Central Oregon to educate the public on the strategic plan for the OSU-Cascades campus, the design plan, the reason for the EPA grant proposal and to discuss the workforce, economic development, community integration opportunities which would benefit from the campus expansion. The meeting garnered overwhelming support for the remediation and reclamation projects as well as interest in and suggestions for a growing relationship between OSU-Cascades and the Central Oregon community.

Ms. Kelly Sparks, Associate Vice President of Finance and Strategic Planning, OSU-Cascades, presented an overview of the remediation of a landfill and reclamation of a pumice mine adjacent to the campus. OSU-Cascades will request a \$500,000 EPA Brownfield Grant to use towards the remediation of the former landfill. The funds from the grant would allow for the remediation of an area large enough to support a large assembly hall that would serve both the university and the local community.

Mr. Steve Pitman, Director of Facilities and Operations, OSU-Cascades, discussed the architectural designs for the campus expansion as well as the engineering challenges faced in the process. Mr. Pitman described the remediation process of screening landfill materials for suitable fill for the pumice mine development. One benefit to this process design is that all traffic from hauling vehicles would remain on OSU-Cascades property, reducing the impact to neighboring residents and businesses.

The grant funds would be used for clean-up activities, expanding the first phase of the clean-up. The grant would require a 20% match, which would be met using the Sate XI-Q bond already committed to the project.

Ms. Tammy Wisco, Owner, Retia Consulting, provided a detailed explanation of the competitive nature of this grant. There will be up to \$11M awarded over approximately 40 approved proposals. The criteria for the grant include:

- Project Area Plans for Revitalization
- Community Need and Community Engagement
- Task Descriptions, Cost Estimates and Measuring Progress
- Programmatic Capability and Past Performance

TABLETOP DISCUSSIONS

Economic Development: This group discussed the innovation district, its impact on economic development and student engagement with private companies.

From the earliest stages of this project, OSU and OSU-Cascades will have the opportunity to take part in and study the environmental remediation process as it occurs. In addition to engaging students, the innovation district will provide opportunities for new economic growth by hosting a variety of industry clusters across the tri-county area. Examples of areas of interest and potential partners were identified as follows:

- Energy Companies – offering a mutually beneficial relationship with OSU-Cascades Energy Science Engineering program.
- Computer Science and Information Technology – IT optimization work is happening in the area and there is a desire to have a Masters in Data Center Management on campus. This industry will bring in high paying jobs, injecting significant money into the local economy. Partnerships possibilities include Amazon Web Services, Google, Facebook and St. Charles Digital Health and Analytics.
- Anatomy, Physiology and Health – A space for this industry in the innovation district is of interest to local businesses such as Bend Research as well as several spinoffs for pharmaceutical formulation companies, device and cleanroom technology.

In addition there was brainstorming around the types of industries the innovation district would be able to support; highlights were the opportunity to host maker space, outdoor product testing labs, rapid prototyping and light product manufacturing support. What the group noted that they did not want to see in the innovation district was full scale manufacturing.

It was agreed that an ad-hoc advisory board should be created, comprised of a group of people from different economic clusters that have selected individuals from local government and public sector.

Community Integration: This group focused on the potential for community integration into the expanded campus. Concepts for community integration included:

- **Public use partnerships in the innovation district** – interests ranged from health clinics, childcare, bookstores, art galleries, to coffee bars. The group recognized a need to strategically design business integration that seamlessly blends into the community.
 - Recommend incorporating art into the innovation district— include arts and culture on the lower level to serve as a gateway to the university.
 - Develop mixed use spaces to organically create collaboration between disciplines such as art and science.

- Fill void in community with a **large space conference center** - several businesses would use a large space, but not often enough to support one independently. Currently Bend High School is the only local option with a large capacity for seating. In addition the community has expressed interest in a performing art center. Keep the space flexible in types of usage, accommodate changing needs, and consider future technology needs.
- **Visions for art and campus** – An art gallery or art exhibit should be located in the innovation district. Incorporate spaces for outdoor art in the overall innovation district design and continue spaces throughout campus. Installations could incorporate student art and themed exhibits. Having immersive/interactive installations would help create inclusive experiences on campus.

Education Partners and Workforce Development: This group discussed what kinds of hand-on experiences the innovation district could provide, private partnerships to help provide these experiences for students and the potential for post-bachelor's degree level training.

Ultimately the goal is for students to be academically prepared with employable skills. Local businesses seek to employ people from the Central Oregon area and want to hire OSU-Cascades graduates. The region has various areas of specialized interest such as outdoor gear and technology. It is important to the community to have people educated in these areas to keep up with the growing demands. For those wanting careers in local industries, OSU-Cascades has the opportunity to become a destination university. There needs to be a focus on ensuring students have experiential learning opportunities such as internships and other on-the-job training experiences that prepare them for such workplaces. In addition, there is a need for people to improve their skills and advance in their careers by having the ability to obtain certifications and continuing education while in the workforce.

This group agreed that it is important to have the grant so we can have the land prepared and available for building as soon as possible. Remediating the land will allow engineers to hit the ground running and to get ahead of the process.

SUMMARY

There was overwhelming community support and excitement over the remediation project and future campus expansion. The EPA Brownfield Grant is important for this phase of remediation to expand building opportunities. During the meeting there was a suggestion to create a Technical Advisory Committee for the process. Numerous attending community partners expressed their willingness to serve in such an advisory capacity for this project.

Public Meeting - EPA Brownfield Grant

Wednesday, January 16, 2019

5:35 PM

Meeting Date: 1/16/2019 5:30 PM

Location: Tykeson Hall 111

Link to Outlook Item: [click here](#)

Invitation Message

Meeting Organizers/Staff

[Coffin, Christine , Director of Communications](#)(Meeting Organizer)

[Penttila, Jarrod, Project Manager](#)

[Tammy Wisco, Consultant](#)

[Sparks, Kelly, Vice President for Finance and Strategic Planning](#)

[Pitman, Steve, Director of Facilities and Operations](#)

[Garland, Blair, Senior Director of Marketing and Community Outreach](#)

Meeting Notes

- 535PM Kelly started
 - Introduced herself
 - Estimated cost of remediation
 - 500K grant
 - Why apply for grant
 - grow footprint of phase1 work
 - work will happen in phases
 - What is the role of 4 year university
 - Faculty 900
 - Staff and companies partners
 - Community integration
 - How do we integrate community to access our campus
 - Trailers
 - Site uses
 - Econ dev
 - Collaboration with previous companies
 - What else could we do with others
 - What type of labs
 - What could this look like when integrated
 - Ask questions
 - We will present lots of material. We get excited about moving dirt
 - Kelly read Steve/Tammy bios
- 542PM Steve started
 - Steve started with bright white slide (where are we going)
 - Explained terminology used
 - Remediation and reclamation
 - Showed what the bow will look like in 15 years
 - How do we get from where we started to where want to go
 - How do we get there
 - Phases explained
 - Lift the elevation of the mine up 30-50 feet
 - Pathways easily accessible to all users (ada)
 - We will end up with material we cannot use for building on. We will put this in area 3

- Explanation of what we would do with the extra 500K
 - This land would get us the land for 1 more building which would come from phase 2 into phase 1
- How will the work happen
 - The arrow slide... complex
 - Picture of the material pulled out in the.
 - Tires exist and other material as well. We figure there are some bad things in there but they are small amount. We have a plan with DEQ and Deschutes county for what we would do with those
 - We know that there will be some ACM in the waste as well. We are working on how we would handle those pursuant to DEQ requirements.
 - No arrows leaving or coming onsite/offsite
 - We can handle the vast majority of what we need to do onsite. Win/win for community and for university. Less costly and impactful to do things this way.
- 553PM Tammy started
 - We are asking for 500K to move dirt, why
 - Explain grant proposal
 - The ABCA is available online
 - We need almost all the points on the proposal to win the grant
 - Explanation of sections and the points
 - Project area and plans for revitalization
 - Regional and local goals
 - Economic dev goals
 - Central Oregon goals
 - EDCO econ dev goals
 - Community need and engagements
 - Pell grant students
 - Community truly needs it
 - Challenges addressed
 - Education desert
 - Community integration district
 - Tasks and costs
 - Explained the cost estimate of the Rec/Rem work coming up
 - Team
 - OSU cascades staff and consultant team
 - Success obtaining previous grants and goals to get the sites
 - Due diligence previously done
 - Business Oregon tech grant
 - USDA forest service biomass planning
 - Community partner groups
 - Economic development innovation district (rod ray)
 - Community integration (Bruce cummings) - Bruce out, filled in by Chris Coffin
 - Education partners and workforce development (John Rexford)
- Questions
 - Who are competitors for grant money
 - A - grant is nationwide. 11M awarded over approx. 40 requests
 - Do we need letters of support
 - A - there really isn't letters of support needed due to the structure of the grant. We need good support from the public as noted in community engagements
- 601PM - folks moved to individual tables (See separate notes)

EPA Brownfield Cleanup Grant Proposal

PUBLIC MEETING

5:30 – 7 p.m., Wednesday, January 16, 2019

Tykeson Hall, Rm. 111, Oregon State University - Cascades

Table Top Discussion: Economic Development Innovation District

Discussion Leader: Rod Ray

Scribe: Adam Krynicki

Participants:

Tom Anderson – Deschutes County Administrator

Amy Fratzke – Fratzke Commercial Real Estate Advisors

Brian Fratzke - Fratzke Commercial Real Estate Advisors

Blair Garland – OSU-Cascades

Teri Hockett – TAO (Technology Association of Oregon)

Rod Legg -

Tim Shimke – Deschutes County Department of Solid Waste

Kelly Sparks – OSU-Cascades

What is the role of the new building?

Kelly Sparks: Through this project, OSU-Cascades will build the cornerstone of the new innovation district – a 500+ person community hub. The hub will provide our community with greater access to educational experiences, workshops, art, events, and civic engagement. Further, it is envisioned that the space will be used for the graduation ceremonies, philanthropic events, and civic experiences that increase the quality of life in Central Oregon.

What is the role of this group?

Rod Ray: The role of the group is to discuss the innovation district, to discuss its impact on economic development, and consider its impact on student engagement with private companies

What is impact of OSU-Cascades on Economic Development?

Rod Ray: The impact of OSU-Cascades on economic development is currently \$196 million per year. Through this project, OSU-Cascades will begin building an innovation district that will foster partnerships between university researchers, students and startup companies in high-tech, bio-tech and other industries. The future innovation district is estimated to contribute \$282 million annually to the Deschutes County economy and \$318.8 million annually in total state economic impact.

How much space?

Rod Ray: The Innovation District will consist of 380,000 square feet. This represents a significant state investment of \$114 million.

Will students be engaged with remediation?

Rod Ray and Adam Krynicki: This project will provide unique opportunities for academic programs and workforce development initiatives. During the rehabilitation of the pumice mine, OSU-Cascades students in the biology and sustainability programs will have the opportunity to take part and study the environmental remediation process as it occurs.

Teri: OSU-Corvallis could contribute people from the biology department.

Research and industry partnerships that could complement research agenda

Rod Ray: This project will provide opportunities for new economic growth. Central Oregon hosts a variety of industry clusters across the tri-county area.

Energy Companies

- Rod Ray: Onboard Dynamics is an example. There is an energy systems engineering program that could be right next to this company.

Computer science and information technology

- Rod Legg: IT Optimization work is happening over in Prineville.
- Teri is working on a Masters in Data Center Management with the university. She is starting a boot camp this summer.
- Adam: Silicon Valley, Portland, Seattle, and Los Angeles based software engineers would rather live in Bend for the lifestyle. With the rate of pay of 200k+ it would inject a significant amount of money into the economy.

Anatomy, physiology, health

- Rod Ray: Bend Research would have an outpost at the Innovation District if it existed.
- Teri: There is an opportunity for software based in biotech. We don't have a place to house them. We need space and a talent pool.
- Rod Ray: Bend has a bunch of spinoffs for pharmaceutical formulation companies, there is a device subsector, and we are a hub for cleanroom tech.
- Teri: Mohan Noir from Cambia Health said that St Charles is a single source of healthcare is therefore is a single point of access for data. This would be a good opportunity for data analytics and data science in healthcare.

Other Opportunities:

- Brian Fratzke: There are companies moving out of Bend because we don't have the talent and size of facilities needed to support these companies.
- Brian Fratzke: We have an opportunity for food processing and production because people like to be in the Central Oregon climate. Also, we have a variety of companies producing food and drinks for those on kidney dialysis. Also, software development is a big draw. We host apparel and outdoor products with 13 spinoffs from former employees of Nike. In terms of light manufacturing, companies like Bend Plating setup shop here and sell to Harley Davidson – everything has to be made in the USA.

Is this a teaching school or a research school?

Rod Ray: Oregon State University – Cascades is moving from teaching to research. The Innovation District is one vehicle to do that.

What kind of public partners that we should try to attract?

Rod Ray: The Innovation District will grow its existing academic programs and host a variety of new training and internship opportunities in energy systems engineering, pharmaceutical formulation, food production, software development, and outdoor products.

Teri Hockett: Further, the Innovation District will create an opportunity for new programs, such as a Data Center Management degree in partnership with AWS, Google, and Facebook or a Digital Health and Analytics program in partnership with St. Charles Health System

What things do we need to support the innovation district?

Rod Legg: Currently the university hosts an incubator program for local startups, but with the Innovation District, the university will create a playground for existing businesses and startups.

Rod Ray: The university could host a makerspace, IT support, machine shop, wood working, welding, and electronics shop.

Teri Hockett: It is also envisioned that the Innovation District could host an outdoor products testing lab with a climbing wall, sustainability/chemistry lab, and specialized stress testing equipment.

Rod Legg: The Innovation District could host a Rapid Prototyping and Pilot Project Center and provide light product manufacturing support.

Rod Ray: It could do anything that lowers overhead, such as provide market, logistics, distribution, and other support.

Who should be on the advisory board?

Brian Fratzke: The advisory should be comprised of a broad group of people that figured out how to do it before all this stuff was here. We should pick people who have done it from the financial sector and economic clusters.

Teri: We need diversity from the different economic clusters.

Rod Ray: We need the right people from local government - the right public sector people.

Tom Anderson: We also need accounting, marketing, people. Additionally , we need representatives from EDCO, Chamber, TAO, etc.

What wouldn't you want in an innovation district?

Rod Ray: We don't want full scale manufacturing.

Rod Ray: A big flexible space would be great. The long high bay was awesome at Bend Research

EPA Brownfield Cleanup Grant Proposal

PUBLIC MEETING

5:30 – 7 p.m., Wednesday, January 16, 2019

Tykeson Hall, Rm. 111, Oregon State University – Cascades

Table Top Discussion: Community Integration

Discussion Leader: Christine Coffin

Scribe: Lori Waters

Participants:

Susanna Julber – City of Bend

Dana Whitelaw – High Desert Museum

David Bermudez – Bend Science Station

Reilly King – Associated Students of Cascades Campus

Todd Dunkelberg – Deschutes Public Library

Christine Coffin provided overview of campus masterplan:

Overview of the community amenities planned: 10 miles of walking/biking trails

An amphitheater

Natural landscaping than can attract native birds and insects

Recreation fields

Health and wellness center

Early learning center and Bend Science Station

Food venues and outdoor seating

Mid-market, affordable housing

Innovation District*

Conference Center*

Art – inside/outside/all around campus*

***these topics to be further discussed in table top discussion**

What interesting public use partnerships can you see at street level that will create a vibrant community environment and serve student and public needs?

Reilly King- Expressed interest from the student community to have a walk in health clinic (student immediate care) in collaboration with Mosaic, St. Charles, or other established medical care entity.

Todd Dunkelberg – Trying to draw in public with current interest (small collection, bookstore, and bookstore/café). Interested in exploring childcare space to support the university community. Another idea would be to have local specialty shops such as a running/ski/bike shop that support the interest of community and students.

David Bermudez – From his experience with the Bend Science Center shared that while it is great to bring people together is important to also design spaces that separate groups and activities appropriately. He provided the example of keeping families and kids on the edges of the campus so that they can interface, but stay in appropriate areas and not be overwhelmed by older individuals or activities. Create an environment for access and feel, but keep at the appropriate level for comfort and safety.

Dana Whitelaw – Shared based on her experience the need to integrate art into innovation district. Noting that it would be great to see arts and culture on the lower level of the innovation district. Examples offered were; welcoming

activities, outside culture (gateway into university), small galleries, and space for experiential opportunities to engage families in art. There was further discussion regarding the benefits of mixing areas of science, art and humanities and organically creating collaboration.

Todd Dunkelberg - Noted that MIT (not by design) has a building space that has mixed use spaces and the results have been documented in a highly positive light.

David Bermudez - Referenced a study in England where leaps were made due to the fact they were taking tea together creating a natural collaboration across disciplines. One such idea to foster this collaboration was innovation café that created the space needed to have those conversations.

We will eventually have need for large space Conference Center. How might the community be interested in sharing the space and what kinds of space can serve the most number of needs?

Todd Dunkelberg – There are numerous business and organizations that need a large space 3-4 times a year. (i.e. author presentations, conferences, concerts). Currently Bend High School is the only choice with a large capacity seating. The thought is to bring businesses and organizations together to create a space that served multiple needs with the key being flexible in space usage.

Reilly King – From a student perspective this would be a great way to integrate events with community and students, and also offer the possibility of holding commencement ceremonies on campus.

Dana Whitelaw – There is a void in our community when it comes to having a public performing arts center. While there has been some talk of local organization moving in this direction, there has been little progress made and the loosely formed group does not appear to have a clear vision. There could possibly be a shared cost of development with interested groups.

Susanna Julber – Recognized that from the City’s perspective that there is a need for conference space throughout the community.

Todd Dunkelberg – Reiterated the need to keep any space built to be flexible and accommodate changing needs; consider technology needs of the future. Augmented reality and spaces that will not become dated.

What are your individual visions for art and campus –in buildings, in the landscape, etc. How can the art draw and serve to welcome diverse audiences?

Dana Whitelaw – The most interesting installations are bringing together individuals from different disciplines - infusing science and industries. Such installations create a more inclusive environment and invite different populations. Further discussion around this topic discussed creating immersive installations that create experiences. One example of such was sound installations resulting in an auditory experience. In this way art could also be used to help create a more inclusive environment.

David Bermudez – Consider use of 1% for Art earmarked funding, that allows for public art installations. Maybe pre-establish places for art that changes over time, using space as an outdoor gallery. There was group consensus regarding the benefit of having a changing art exhibit, not being static and therefore helping to create conversation.

Reilly King – Suggestion was made to incorporate student art pieces, allowing them to be displayed and moved around campus. Reilly also shared the example of “mood room” like they have on the Corvallis campus that allows student to express their feelings and share with other students through interactive art.

EPA Brownfield Cleanup Grant Proposal

PUBLIC MEETING

5:30 – 7 p.m., Wednesday, January 16, 2019

Tykeson Hall, Rm. 111, Oregon State University - Cascades

Table Top Discussion: Education Partners and Workforce Development

Discussion Leader: John Rexford

Scribe: Kristin Steinke

Participants:

(b) (6) - local citizen works for general contractor (Scansia)

Shay Michaelson - Superintendent for Bend LaPine Schools

Lisa Dobey –St. Charles Foundation

Joe Viola – Central Oregon Community College (COCC)

Alan Unger, COCC Board & OSU-Cascades Board

Heather Ficht - East Cascades Works (Workforce Development)

Steve Pitman - OSU-Cascades

Discussion Topics

- ***What kinds of hands-on, experiential learning opportunities does the Innovation District present? How do you see those opportunities best playing out and for which student audiences?***
- ***Who are the best private partners to attract to the Innovation District – partners who can also provide valuable internships and experiential learning experiences for students?***
- ***COCC, OSU-Cascades and BLPSD focus on workforce development efforts. How can OSU Cascades best supplement those efforts and educate – or re-educate at the post-bac level – the kinds of workers needed by industry today?***

John Rexford introduced himself and began by stating: Education partners are working on this project closely, Bend LaPine Schools, COCC, OSU-Cascades; educators meet on a monthly basis to discuss education priorities and implementation. This is an important relationship and collaboration. Partnerships in Bend (K-12 system) are unique; this campus could be a landing site for many of our own students.

Shay Michaelson: Ultimately our goal for our students is to be academically prepared and their ability to apply employable skills so the partnership with OSU-Cascades is critical to establishing and developing a pedagogy to achieve this goal.

Alan Unger: COCC is the oldest community college in Oregon and was the only place in Central Oregon to get an education. The degree partnership (DPP) has allowed students to grow their education from community college to 4-year. The local Better Together program has helped students find a path for these young students and growing OSU-Cascades will only cement this relationship.

Joe Viola: COCC looks to attract first year students from Central Oregon and likes to employ people in Bend so we want to hire OSU-Cascades graduates as we also grow our student population.

(b) (6): As an Oregon State alum, I am very impressed by the growing programs offered by OSU-Cascades. The growth is important to the community. I appreciate how the K-12 schools are collaborating with COCC and OSU-Cascades.

Heather Ficht: Better together and Youth Career Connect are in both Sisters and Prineville now (this is a recent expansion). I would like to see the greater area view OSU-Cascades as a destination school. Our workforce may engage other populations in the area. (Heather was asked to explain what YCC was) YCC is a partnership (public/private partnership) in tri-county region with businesses/chamber organizations, where they hire internship coordinators in

each county to help students prepare for emergent workforce. Internships are specific to organizations — with on the job training.

It would be helpful to take advantage of the summer period, when student residence hall rooms are available and young people need experience on a college campus. An example is a weeklong boot camp for different career areas (tech/bio/engineering) which would be an excellent opportunity (hands-on learning).

Lisa Dobey: St. Charles is the largest employer in the region. We need all of you because the more educational opportunities that exist in the region, the better for us. Degrees and certifications while people are working help our workforce improve skills and advance in their careers. Continuing education opportunities for professionals are essential.

John asked Lisa to discuss post-baccalaureate needs: St. Charles employees are required to have updated training (some); others need additional certifications to advance and a growing OSU-Cascades campus could offer these opportunities. Basic skills are needed as well—certifications in specific skill sets like Excel. Not everyone is responsive to on-line learning only (hybrid is better for many people). People want more training/more knowledge in order to grow.

Heather Ficht: The way technology grows—universities need to stay relevant and grow/teach. When people change careers, they need the opportunity to learn new skills.

John Rexford: What kinds of hands-on, experiential learning opportunities does the Innovation District present?

Heather Ficht: Co-lab, innovation/entrepreneurial spirit, small business is huge here (Central Oregon) and we have an outdoor gear and technical focus, with many entrepreneurs, so we need our population to be educated in these areas.

Alan Unger: We need to be proactive to prepare our workforce for the growing employment opportunities.

Joe Viola: It is also important to prepare the land for when the money is available to build as soon as possible. Remediating the land now will allow us to hit the ground running as soon as we can. Land use-approved facilities are important (the process is slow so we have to get ahead of it).

Lisa Dobey: It is important to have highly educated people who can do the jobs that we are preparing the community for.

Shay Michaelson: The school system has partners with community by way of advisory boards that keep our curriculum relevant (preparing our students for the jobs in Central Oregon).

Heather Ficht: Work experiences are also needed for our community—local folks will learn from this experience (remediation process). Is there a role for students, local engineers to learn here? Site tours, environmental studies, etc.

Joe Viola: “if you build it, they will come” People who are already working and are looking for the next steps need continuing education. Nights/weekend courses will attract more students. With the Bend Science Station co-locating here we have already seen young kids seeing their future at a university in our city.

Steve Pitman: In response to question regarding timeline for Phase I: Next 2 years; pilot study begins this month and will establish how long it will take to clear the land and that project will run for a year with construction. If successful, this EPA Brownfield CleanUp grant will allow us to learn how to solve problems in the future. These landfills are a common problem and we can learn from this experience, with a learning institution who will benefit from this knowledge.

John Rexford: What happens to the wood that is culled from the pit?

Steve Pitman: Fuel is an option but most of it has degraded enough that it's not worthwhile for fuel. "Biochar" is a product that may be used/created. It probably won't have an economic benefit yet but we will have it on-site and we can see what the future holds. It is a mystery about what is in the mine...we know or can speculate most of it. EPA testing has been done and we will obviously know more when we begin to clean-up the old mine/landfill.

EPA FY19 Brownfield Cleanup Grant Proposal

PUBLIC MEETING

5:30 – 7:00 p.m., January 16, 2019

Oregon State University – Cascades, Tykeson Hall, Room 111

SIGN UP

Name	Address	Email	Yes, send me OSU-Cascades news and event info.
John Rexford	(b) (6)	(b) (6)	Yes
Heilly King	(b) (6)	(b) (6)	No
Adam Kermicki	(b) (6)	(b) (6)	Yes
Jackson Hogan	The Bulletin	j.hogan@bulletin.com	I already get them
Lisa Joy		lajoy@smc.ors	11
Dana Whitelaw	High Desert Museum	dwhitelaw@highdesertmuseum.org	
Blair Garland	(b) (6)	(b) (6)	
Tim Schimke	(b) (6)	(b) (6)	NO
Teri Hockett	(b) (6)	Teri.Hockett@kchcra.org	yes
Shay Mikalson	(b) (6)	shay.mikalson@bend.k22.com	yes
Rod Legg	(b) (6)	(b) (6)	yes
JOE VIOLA	8	jviola@corc.edu	✓

EPA FY19 Brownfield Cleanup Grant Proposal

PUBLIC MEETING

5:30 – 7:00 p.m., January 16, 2019

Oregon State University – Cascades, Tykeson Hall, Room 111

SIGN UP

Name	Address	Email	Yes, send me OSU-Cascades news and event info.
Todd Dunkelberg	(b) (6)	todd@deschuteslibrary.org	
Lori Waters	(b) (6)	lori.waters@osucascades.edu	
Kristin Steinke	(b) (6)	Kristin.steinke@osucascades.edu	
Heather Ticht	(b) (6)	heather@ecworks.org	
DAVID BERMUDEZ	(b) (6)	bermi@bendsciencestation.org	
Sisanna Julbar	city of Bend	sjulbar@bendoregon.gov	
(b) (6)	(b) (6)	(b) (6)	
Brian Fratzke	(b) (6)	OH FIRE	
Amy Fratzke	(b) (6)		
Alan Unger	(b) (6)	alunger@bendcable.com	✓
Tom Anderson	(b) (6)	toander@deschutes.org	

ATTACHMENT D:
Draft Analysis of Brownfields
Cleanup Alternatives

DRAFT ANALYSIS OF BROWNFIELD CLEANUP ALTERNATIVES

OREGON STATE UNIVERSITY—CASCADES:
LANDFILL REMEDIATION
BEND, OREGON



Prepared for
OREGON STATE UNIVERSITY- CASCADES
December 17, 2018
Project No. 1290.01.04

Prepared by
Maul Foster & Alongi, Inc.
2001 NW 19th Avenue, Suite 200, Portland, OR 97209

DRAFT ANALYSIS OF BROWNFIELD CLEANUP ALTERNATIVES
OREGON STATE UNIVERSITY—CASCADES: LANDFILL REMEDIATION, BEND, OREGON
ECSI NO. 4884

*The material and data in this report were prepared
under the supervision and direction of the undersigned.*

MAUL FOSTER & ALONGI, INC.

*Brooke Harmon, PE
Staff Engineer*

*Jennifer King PE
Senior Engineer*

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ACRONYMS AND ABBREVIATIONS

1200-C Permit	National Pollutant Discharge Elimination System Construction Stormwater Discharge Permit 1200-C
ABCA	analysis of brownfield cleanup alternatives
ACM	asbestos-containing material
Apex	Apex Companies, LLC
bgs	below ground surface
CREC	controlled recognized environmental condition
cy	cubic yard
DEQ	Oregon Department of Environmental Quality
ESA	environmental site assessment
GBB	Gershman, Brickner & Bratton, Inc.
MFA	Maul Foster & Alongi, Inc.
OAR	Oregon Administrative Rule
OSU	Oregon State University
PPA	prospective purchaser agreement
RBC	DEQ risk-based concentration
Site	the former Deschutes County Landfill
Solid Waste Permit	DEQ Solid Waste Permit No. 215
USEPA	U.S. Environmental Protection Agency
VOC	volatile organic compound

1 INTRODUCTION

This analysis of brownfield cleanup alternatives (ABCA) was completed for a 72-acre inactive construction and demolition waste landfill owned by OSU-Cascades located in Bend, Oregon (the Site, see Figure 1). This ABCA was prepared to meet the requirements of U.S. Environmental Protection Agency (USEPA) Brownfields Cleanup Grants program and the applicable Oregon Department of Environmental Quality (DEQ) regulatory requirements and remedial action objectives for protection of human health and the environment.

This ABCA report includes:

- Information about the Site, comprised by the areas identified as Cells 1, 2 and 3 (see Figure 2).
- Previous investigations and known contamination, cleanup standards, and applicable laws.
- Effectiveness, implementability, and cost of the evaluated cleanup alternatives.
- Selection of a preferred cleanup alternative.

Redevelopment is not being conducted specifically to improve environmental quality, but improvement is a collateral benefit. Redevelopment of the Site includes an expansion of the OSU-Cascades campus, which will serve the community and improve the environmental quality of the encumbered site. OSU-Cascades will develop a highly interdisciplinary and collaborative campus culture by creating facilities that serve a mix of program uses including academic facilities, housing, an innovation district with industry and research partners and recreation facilities.

2 BACKGROUND

2.1 Site Description

The Site is approximately 72 acres, located in the northwest quarter of Section 6, Township 18 south, Range 12, east of the Willamette Meridian. It is currently owned by OSU-Cascades and is in the southwest portion of Bend, Oregon. The Site is bordered to the north and west by residential properties, to the east by commercial development, and to the south by a former surface pumice mine owned by OSU-Cascades and the current OSU-Cascades campus.

The geology of the Site consists primarily of volcanic soils with tuff, cinder, and basalt. As a construction and demolition waste landfill, the Site has been extensively landfilled with mill waste, construction-demolition waste, and cover soil. The landfill was active from 1972 to 1996 to dispose

of construction and demolition waste, industrial waste, woodwaste, brush, and tires and operated under the DEQ Solid Waste Permit No. 215 (the Solid Waste Permit).

As shown on Figure 2, the site was developed in three distinct areas. A previous site investigation conducted by Gershman Brickner & Bratton, Inc. (GBB, 2008) estimated the waste limits (defined herein as waste cells) and composition in each area.

- Area 1 is in the eastern portion of the site (tax parcel 1812060000110 and 181206A000719). Area 1 is the oldest landfill area and was filled with a large quantity of woodwaste from local saw mills. Area 1 is 23.2 acres; however, the footprint of waste, Cell 1, extends beyond the western parcel boundary, into property owned by the Bend Park and Recreation District and is estimated to be approximately 24.7 acres. A portion of Cell 1 has been undergoing pyrolysis¹, and, therefore, has not received closure certification by DEQ.
- Area 2 is in the south-center portion of the site (southeast portion of tax parcel 1812060000111). The waste composition in Area 2 is very similar to that of Area 1, except that it also contains construction and demolition debris. Area 2 is 9.8 acres, and the waste footprint, Cell 2, is estimated to be 7.1 acres. Cell 2 was closed in 1997.
- Area 3 is in the western portion of the site (north portion of tax parcel 1812060000111). Area 3 is 39.4 acres, and the waste footprint, Cell 3, is estimated to be 19.5 acres. Cell 3 waste includes mill waste, construction and demolition debris, and large woody debris such as logs and stumps.² Cell 3 was closed in 1997.

2.2 Previous Investigations

Various environmental investigations have been conducted at the Site and are summarized below.

- **Subsurface Assessment (David Evans & Associates, Inc., 1997):** The primary focus of the 1997 investigation was the assessment of Area 1. Nine test pits ranging from 3 feet to 21 feet below ground surface (bgs) were advanced. Twenty-eight borings, ranging from 5.5 feet to 34.5 feet bgs, were advanced, meeting with refusal in some instances. Eight deeper borings were also advanced. This assessment identified the issue of pyrolysis associated with the anaerobic decomposition of woodwaste in the landfill.
- **Demolition Landfill Redevelopment Study (URS Corporation, 2002):** URS provided the County with a redevelopment study for the Site. The purpose of the report was to convey site conditions and to identify possible reuse. The report reviewed then-current vegetation, zoning, available utilities in the area, transportation considerations, and nearby water rights, as well as a groundwater beneficial use survey. The report included a property evaluation and identified potential reuse scenarios.

¹ Pyrolysis is thermochemical decomposition of organic material at elevated temperatures in the absence of oxygen.

² Note that the permit allowed for disposal of industrial waste, but none was specifically identified in the prior investigations (GBB, 2008, Apex 2016).

- **Demolition Landfill Subsurface Investigations Study (GBB, 2008):** GBB provided the County a summary of completed site investigations and performed additional site assessment activities to supplement the 1997 DEA investigation and provide more information on the waste composition and the potential for impacts to the native material below the landfill. GBB completed full-depth drilling into waste and underlying soils; this included 13 exploratory borings and 14 shallow test pits (up to 20 feet bgs), as well as replacement of three landfill-gas wells and three temperature probes. Test pits were advanced primarily to identify waste composition and materials. Waste consisted primarily of ash, sawdust, metal, tires, woodwaste, roofing materials, and fill/fines. In addition, potential asbestos-containing materials (ACM) were observed in a few test pits. GBB also performed a subsurface magnetic and electrical resistivity survey to understand waste thicknesses.

Waste and underlying soils from borings were sampled and analyzed for metals, total petroleum hydrocarbons, volatile organic compounds (VOCs), semivolatile organic compounds, polycyclic aromatic hydrocarbons, polychlorinated biphenyls, and pesticides/herbicides, in addition to moisture and organic content. The analytical results were screened against DEQ risk-based criteria (RBCs) established at the time. The results showed exceedances in soil of residential vapor intrusion, direct contact, and leaching to groundwater RBCs for several constituents.

GBB concluded that the deepest point of waste in the landfill is more than 200 feet above the static groundwater level, and infiltration to the soil below the landfill was not indicated.

- **Phase I Environmental Site Assessment, Adjacent Property (PBS, 2013a):** PBS completed a Phase I environmental site assessment (ESA) for two properties owned by OSU-Cascades that are adjacent south of the Site (the pumice mine) and west of the Site (a strip between the landfill and SW Mount Washington Drive). The ESA identified no recognized environmental conditions pertaining to the properties but indicated that the adjacent landfill cap extended onto the properties and recommended an investigation to understand if landfill material was present.
- **Focused Site Investigation, Adjacent Property (PBS, 2013b):** Based on the 2013 PBS Phase I Environmental Site Assessment recommendation, PBS completed a focused subsurface investigation of two properties located south adjacent to the Site. Test pits advanced along the property boundary near Area 1 of the Site confirmed that solid waste material extends approximately 20 feet south from the northern edge of one of the properties and approximately 340 feet laterally along the boundary. Solid waste was not observed to extend onto the other adjacent property near Area 2 of the Site.
- **Phase II Characterization Report (PBS, 2013c):** PBS advanced three deep borings, ranging from 265 feet to 315 feet bgs, which were completed as monitoring wells in March and April 2013. Groundwater was encountered between 242 and 293 feet bgs at the Site. Groundwater was noted to be approximately 150 feet below fill waste and not in contact with landfill materials. Groundwater monitoring was completed in accordance with the Solid Waste Permit. Analytical results show a closure permit exceedance for pH in groundwater from two of the three monitoring wells. Arsenic, barium, chromium,

vanadium, and zinc were detected in one or more monitoring wells but at concentrations below USEPA maximum contaminant levels and DEQ guidance levels. Additionally, PBS visually assessed the pumice mine adjacent to the Site to interpret the subsurface geology within the uppermost 100 feet. Rock coring was completed at the Site to 260 feet bgs and a site geologic interpretation of the volcanoclastic material was provided.

- **Former Demolition Landfill Mitigation Evaluation (Apex, 2014):** Apex completed a geoenvironmental conditions summary for development of mitigation alternatives for future redevelopment at the Site. Apex identified four primary site redevelopment constraints: areas that contain significant landfill material, areas where pyrolysis may be occurring, requirements of the Solid Waste Permit pertaining to the Site, and migration/impacts to the surrounding community, including fugitive odors and trucking impacts. Many alternatives and approaches were identified, including avoidance of landfilled areas during redevelopment, excavation, and reconsolidation of landfill materials on site.
- **Focused Site Investigation (MFA, 2016):** Subsequent to the above-referenced investigations, MFA performed a focused subsurface investigation in 2016. This investigation included surface soil and soil vapor sampling. Lithology showed that cap thickness ranges from 0.5 feet to 5 feet in Areas 1 and 2. A deeper boring was advanced to confirm cap thickness in Area 3, where past investigations had observed a thicker cap. Observations at this boring showed a cap thickness of approximately 40 feet. Landfill soil gas samples were collected from temporary boreholes screened from approximately 5 feet to 10 feet bgs. Methane was not detected in soil gas collected from two borings but was detected in four borings from 1.2 percent to 10.8 percent. VOCs were detected in all samples; however, only two VOCs, ethylbenzene and naphthalene, were detected at concentrations exceeding their respective DEQ RBCs for urban residential vapor intrusion into buildings.
- **Phase 1 ESA (MFA, 2018):** MFA completed a Phase I ESA for OSU-Cascades to support the property transaction. Soil gas was identified as a recognized environmental condition, as methane levels were at or above the DEQ guidance concentration for methane mitigation for structure and confined-space entry and ethylbenzene and naphthalene were above DEQ's RBCs for urban residential vapor intrusion into buildings. The presence of the landfill and associated waste was identified as a controlled recognized environmental condition because detections of petroleum hydrocarbons, benzene, trichloroethylene, benzo(a)pyrene, arsenic, and lead were above the DEQ RBCs for residential receptors. Additionally, potential ACM is likely to be present in the landfill.

2.3 Nature and Extent of Contamination

While the conditions of the Solid Waste Permit for the landfill did not allow the intake of certain types of materials (e.g., municipal solid waste, used oil), not all portions of loads were inspected, and records indicate that there were periods of unattended dumping on some portions of the landfill. Samples collected from waste material within the landfill had concentrations of petroleum hydrocarbons, benzene, trichloroethylene, benzo(a)pyrene, arsenic, and lead above the DEQ RBCs for residential

receptors. There were two exceedances of soil vapor RBCs for urban residential and occupational direct contact for ethylbenzene and naphthalene and methane above DEQ guidance. As the landfill is unlined and contains constituents of concern, there is a possibility of a release from the Site; however, this possibility is considered applicable to soil, as groundwater appears 150 to 200 feet below the waste material. This controlled recognized environmental condition is currently managed through restricted access to the Site, the presence of the cover material, the depth at which native soil is present, the composition of substrate (largely basalt), and depth to groundwater. Additionally, the demolition and industrial waste landfill is managed through compliance with the Solid Waste Permit.

3 APPLICABLE REGULATIONS AND CLEANUP STANDARDS

3.1 State Oversight and Regulations

3.1.1 Cleanup

The DEQ is responsible for overseeing cleanup at the site. Documents prepared for this site are submitted to the DEQ under state Environmental Cleanup Site Information number 4884. The site cleanup is expected to be governed under Oregon Administrative Rule (OAR) 340-122—the Hazardous Substance and Remedial Action Rules. These rules require that any removal or remedial action be conducted in a manner that assures protection of the environment and present and future public health, safety, and welfare.

An Easement and Equitable Servitudes covering the Site, between the Board of Trustees of Oregon State University and the DEQ, was recorded on April 9, 2018. Additionally, remedial actions will be conducted under the Consent Judgment filed with the Circuit Court of the State of Oregon on June 6, 2018.

3.1.2 Solid Waste

The landfill is currently subject to the Solid Waste Permit, issued to the current owner and operator, Oregon State University; along with co-operator Deschutes County. As stated in the Easement and Equitable Servitudes, all site work in all portions of the Site where waste may be present shall be in accordance with the Solid Waste Permit.

3.2 Construction Permits

The project is exempt from the City of Bend clearing, grading, and erosion control permit as it is related to landfill operations, consistent with the DEQ permit related to postclosure activities at a landfill. However, the project will be subject to the Performance Standards (described in City of Bend Code Sections 16.10.070 through 16.10.100 and Section 16.15.040).

The National Pollutant Discharge Elimination System Construction Stormwater Discharge Permit 1200-C (1200-C Permit) regulates stormwater runoff to surface waters from construction activities that disturb one or more acres in Oregon. The 1200-C Permit is a general permit, meaning that it outlines requirements for site construction and is not specific to this site. An Erosion and Sediment Control Plan will be attached to the 1200-C Permit and is site-specific.

4 CLEANUP ALTERNATIVES

The purpose of this ABCA is to identify and evaluate remedial alternatives to address environmental contamination and ensure protectiveness of human health and the environment at the Site. This ABCA was completed in general accordance with USEPA guidelines for conducting an ABCA and Oregon regulations for conducting feasibility studies (OAR 340-122-0085).

4.1 Remedial Objectives

Typically, under DEQ removal authority (OAR 340-122-0090), remedial alternatives are evaluated using the following criteria:

- Effectiveness
- Long-term reliability
- Implementability
- Implementation risk
- Reasonableness of cost

The above factors are discussed below, along with a discussion of climate change and sustainability related to resilience per USEPA guidance (USEPA, 2014).

4.2 Remedial Alternatives

The objective of the remedial alternatives described below is to mitigate environmental risk and be protective of human health and the environment.

4.2.1 Alternative 1—Long-Term Monitoring

Alternative 1 includes no construction, only long-term monitoring and maintenance. Thirty years of monitoring are assumed. This alternative is included as a baseline condition. This alternative would not include any activities to remove or treat landfill waste. If landfill waste is left in place and the Solid Waste Permit requirements are not fully followed, human and ecological exposure is possible and a potential for contaminant migration via erosion.

Consistent with the Solid Waste Permit, the following engineering controls are likely:

- Long-term landfill gas perimeter and/or surface monitoring.
- Long-term site monitoring (inspections, landfill gas measurements).
- Long-term physical cap and surface maintenance (settlement, vegetation management, etc.).
- Subsurface temperature monitoring, with consideration for the area of pyrolysis in Cell 1.

Additionally, if conditions change, landfill gas extraction/venting systems and/or long-term groundwater monitoring may be required. Landfill gas, pyrolysis, and differential settlement are the primary concerns for short- and long-term development scenarios. Due to the arid climate and deep groundwater, leachate control is not likely a concern for this site.

4.2.2 Alternative 2—Landfill Consolidation

Alternative 2 assumes landfill waste would be processed into a beneficial material acceptable for reuse or, if unacceptable for reuse, consolidated into Cell 3. Alternative 2 is broken up into three phases based on OSU's current redevelopment plans.

Phase 1 includes remediation of the southern three acres of Area 2 to create property ready for redevelopment. Approximately 380,000 cubic yards (cy) of waste will be excavated and approximately 120,000 cy of that waste will be screened, processed, and stockpiled. Bulky woodwaste and other unacceptable material would be re-landfilled in Area 3 within the existing permitted landfill area. Some waste unacceptable for landfilling in Cell 3 would be removed and disposed of off-site. Acceptable screened material would be blended with on-site cover soil and backfilled in Area 2 to the desired finish grade; reclamation of the adjacent pumice mine is included in this phase. This phase would create 47.9 acres (3.1 acre of remediation in Area 2 and 44.8 acres of reclamation in the pumice mine) of property ready for redevelopment.

Phase 2 includes the remediation of the balance of Cell 2 and a portion of Cell 1. Approximately 320,000 cy of waste would be excavated and approximately 132,000 cy of that waste would be screened to create suitable backfill for use in Area 2 and Area 1. The woodwaste and non-screened waste would be re-landfilled in Area 3 within the existing permitted landfill area. In addition to the remediation of Area 2 and a portion of Area 1. This would create approximately 11 acres of property ready for redevelopment.

Phase 3 would include remediation of the remaining 18.4 acres of Area 1. The remediation would include excavation of the remaining 900,000 cy of waste in Cell 1. 250,000 cy of the excavated waste would be screened and stockpiled for blending with on-site soils for beneficial reuse. The woodwaste, processed pyrolysis material, and un-screened waste would be placed in Area 3. Screened waste would be blended with cover soil from on-site and then backfilled into Area 1 to a desired finish grade. This would create an additional 18.4 acres of developable land in Area 1.

Open spaces where waste is present, i.e., Cell 3, would likely require the following institutional and engineering controls:

- Long-term landfill gas perimeter and surface monitoring.
- Long-term site monitoring (inspections, landfill gas measurements).
- Long-term physical cap and surface maintenance (settlement, vegetation management, etc.).

Landfill gas and differential settlement are the primary concerns for short- and long-term development under this alternative. Due to the arid climate and deep groundwater, leachate control is not likely a concern for this site.

4.2.3 Alternative 3—Off-Site Disposal of Landfill Waste

The third redevelopment scenario (Alternative 3) assumes all landfill waste from Cells 1, 2, and 3 would be excavated and hauled to a designated landfill. Over 2 million cy of waste would be hauled approximately 6 miles to the Knott Landfill. Waste not acceptable for disposal at Knott Landfill would be treated and/or disposed of at other permitted facilities. Alternative 3 would require several years of constant truck-traffic. An estimated 100,000 truckloads of waste would reduce or eliminate the municipal landfill capacity for local waste disposal.

4.3 Evaluation of Cleanup Alternatives

4.3.1 Effectiveness

The alternatives are judged to be effective in addressing environmental risk. Alternative 1 does not actively address pyrolysis, although under the Solid Waste Permit, the DEQ can require management of this risk. Alternatives 2 and 3 are more effective, as they reduce and actively address the exposure of contaminants to human and/or ecological receptors.

4.3.2 Long-Term Reliability

Following well-established protocols as specified in the Solid Waste Permit, Alternatives 1 and 2 provide long-term reliability. They involve institutional controls (i.e., Solid Waste Permit) and the maintenance of engineering controls (i.e., cap) to prevent exposure of human and/or ecological receptors to contaminants. Alternative 3 would remove all landfill waste from the Site and not require long-term monitoring, thus it is judged to provide marginally more long-term reliability.

4.3.3 Implementability

Alternative 1 is readily implementable. Alternatives 2 and 3 utilize common construction practices, although Alternative 2 is more technically complex. Alternative 3 imparts significant negative impacts on the surrounding community to the point that it may be unacceptable, i.e., not fully implementable. Consequently, Alternative 2 is judged to be more implementable than Alternative 3.

4.3.4 Implementation Risk

Alternative 3 is judged to have more implementation risk than Alternative 2 due to the impact on the community (e.g., noise, dust and potential truck accidents). Alternative 3 involves an extensive amount of truck trips over an extended period; this off-site landfilling would also reduce or eliminate the local municipal landfill capacity for waste disposal. Alternative 2 and 3 would incorporate comparable on-site controls to reduce/eliminate releases (e.g., dust), excess noise and stormwater runoff. For all alternatives, worker risk would be minimized by adherence to a health and safety plan. Alternative 1 has limited action, so implementation risk is low.

4.3.5 Sustainability

Alternative 2 is judged to be more sustainable than Alternative 3, as it requires considerably less truck miles in terms of both waste off-site and backfill import. The additional emissions from construction activities in Alternative 3 are more significant than the emissions related to excavation, screening, and construction hauling in Alternative 2. Alternative 1 requires limited action; however, it does not actively address the concern of the presence of pyrolysis in Cell 1 and does not allow for redevelopment of a brownfield, whereas Alternative 2 allows for removal of the pyrolysis material and development. Redeveloping on brownfields allows for existing infrastructure to be utilized and is a more sustainable approach.

4.3.6 Climate Change Concerns

Climate change has the potential to increase variability in weather conditions in Oregon, including precipitation, temperature and snowpack. Taking a more active remediation approach to address and consolidate the landfill waste hedges against variability in the weather system and how it might impact the landfill waste material. Alternative 2 allows for an active remedial approach, while reducing greenhouse gas emissions as compared to Alternative 3.

4.3.7 Cost

The conceptual-level cost estimate to implement Alternative 1 is approximately \$188,000. The conceptual-level cost estimate to implement Alternative 2 is approximately \$53M. The conceptual-level cost estimate to implement Alternative 3 is approximately \$249M. (See Tables).

4.3.8 Public Participation

OSU-Cascades participated in a public comment process in the issuance of the prospective purchaser agreement (PPA) in early 2018; this document reflects the approach outlined in the PPA. The ABCA process mandates that public concerns be addressed during the selection of a cleanup alternative. This ABCA report will be included in the USEPA grant application to be presented for public comment. Additional public comment period(s) will be included as required by the permitting process of the cleanup action.

5 PREFERRED CLEANUP ALTERNATIVE

The preferred remedial alternative is Alternative 2, which includes:

- Consolidation of waste from Cells 1 and 2 into Cell 3.
- Active remediation of pyrolysis in Cell 1.
- Screening and reuse of cover soil and waste material acceptable for engineered fill.
- Creation of approximately 116 acres of developable land (77 acres unencumbered and 39 acres of passive use).
- Capping of Cell 3.
- Long term monitoring and maintenance.

LIMITATIONS

The services undertaken in completing this report were performed consistent with generally accepted professional consulting principles and practices. No other warranty, express or implied, is made. These services were performed consistent with our agreement with our client. This report is solely for the use and information of our client unless otherwise noted. Any reliance on this report by a third party is at such party's sole risk.

Opinions and recommendations contained in this report apply to conditions existing when services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services. We do not warrant the accuracy of information supplied by others, or the use of segregated portions of this report.

REFERENCES

- Apex. 2014. Draft former demolition landfill mitigation evaluation. Bend, Deschutes County, Oregon. Apex Companies, LLC, Portland, Oregon. June 4.
- Apex. 2016. Draft Pilot Study Report, Deschutes County Construction Demolition Landfill, Bend, Oregon. Apex Companies, LLC. August 22.
- David Evans & Associates. 1997. Demolition Landfill Subsurface Fire Assessment. David Evans and Associates, Bend, Oregon. June.
- GBB. 2008. Demolition landfill subsurface investigations study, Deschutes County Department of Solid Waste. Prepared by Gershman, Brickner & Bratton, Inc. October 31.
- MFA. 2016. Focused Site Investigation. Maul Foster & Alongi, Portland, Oregon.
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- PBS. 2013a. Phase I environmental site assessment. Robinson/4R Equipment Pumice Mine Property, 1707 & 1757 SW Simpson Avenue, Bend, Oregon 97702. Prepared for Oregon State University, Cascades Campus. PBS Engineering + Environmental. October.
- PBS. 2013b. Letter (re: focused site investigation, 1500 SW Chandler Avenue and 1707 SW Simpson Avenue, Bend, Oregon) to K. Sparks, Oregon State University, from N.T. Scott. PBS Engineering + Environmental. October 3.
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- URS. 2002. Demolition landfill redevelopment study. Prepared for Deschutes County Department of Solid Waste. URS Corporation. March.
- USEPA. 2014. Checklist: how to address changing climate concerns in an Analysis of Brownfield Cleanup Alternatives. U. S. Environmental Protection Agency.
https://www.epa.gov/sites/production/files/2015-09/documents/epa_oblr_climate_adaptation_checklist.pdf (accessed December 12, 2018). April.

TABLES



Table 1 - Alternative 1 Conceptual Cost Estimate
Analysis of Brownfield Cleanup Alternatives
Oregon State University-Cascades

DRAFT - Alternative 1 Conceptual Cost Estimate			2001 NW 19th Avenue, Suite 200 Portland, OR 97209 971.544.2139 (p) 971.544.2140 (f) www.maulfooster.com	
Project: Oregon State University - Cascades: Landfill Remediation				
Client: Oregon State University - Cascades				
Summary: Long-term Monitoring				
Project #/Task: 1290.01.04-9				
Prepared By: Brooke Harmon, PE				
Checked By: Jennifer King, PE				
Date: 11/18/2018				
Revision #: 1				
Line Item		Frequency	Cost	Total Cost
Monitoring				
Monitoring (30 years)		annual	\$5,000	
Maintenance (30 years)		every 5 years	\$10,000	
ALTERNATIVE TOTAL (Net Present Value, Rounded to nearest \$1000)				\$188,000

**Table 2 - Alternative 2 Conceptual Cost Estimate
Analysis of Brownfield Cleanup Alternatives
Oregon State University-Cascades**

DRAFT - Alternative 2 Conceptual Cost Estimate			2001 NW 19th Avenue, Suite 200 Portland, OR 97209 971.544.2139 (p) 971.544.2140 (f) www.maulfoster.com			
Project: Oregon State University - Cascades: Landfill Remediation						
Client: Oregon State University - Cascades						
Summary: Phased approach, consolidate landfill cells.						
Project #/Task: 1290.01.04-9						
Prepared By: Brooke Harmon, PE						
Checked By: Jennifer King, PE						
Date: 10/23/2018						
Revision #: 1						
Line Item		Units	Unit Cost	No. of Units	Cost	Total Cost
Construction Cost						
Phase 1					\$9,500,000	
Phase 2					\$13,000,000	
Phase 3					\$25,600,000	
Subtotal					\$48,100,000	
Contingency				10%	\$4,810,000	
Monitoring						
Monitoring (30 years)		annual	\$5,000			
Maintenance (30 years)		every 5 years	\$10,000			
Monitoring and Maintenance (NPV)					\$188,000	
ALTERNATIVE TOTAL (Rounded to nearest \$1000)						\$53,098,000
NOTES:						
CY = cubic yard						
NPV = net present value						

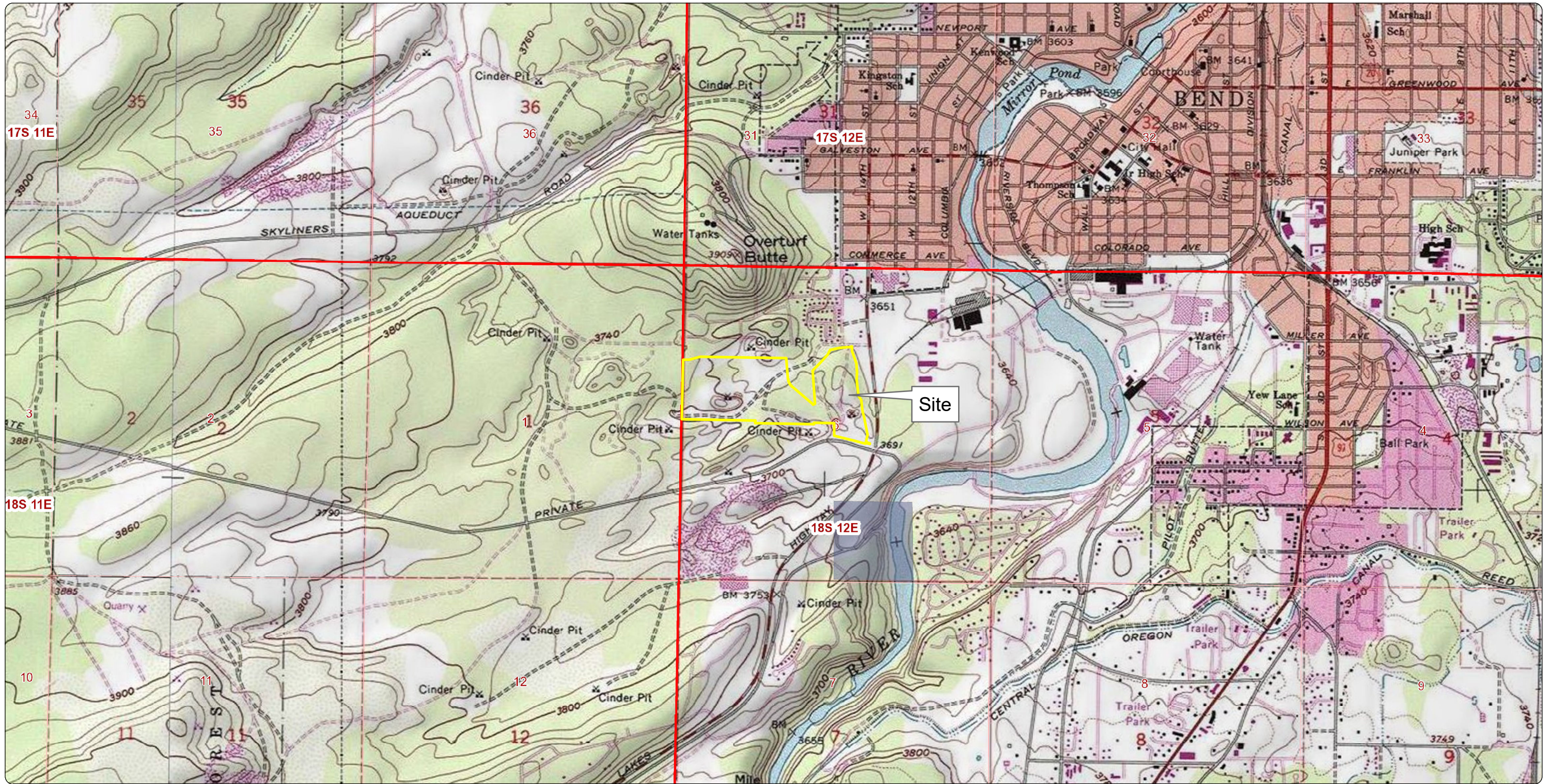
**Table 3 - Alternative 3 Conceptual Cost Estimate
Analysis of Brownfield Cleanup Alternatives
Oregon State University-Cascades**

DRAFT - Alternative 3 Conceptual Cost Estimate				2001 NW 19th Avenue, Suite 200 Portland, OR 97209 971.544.2139 (p) 971.544.2140 (f) www.maulfooster.com																																																																																																																															
Project: Oregon State University - Cascades: Landfill Remediation																																																																																																																																			
Client: Oregon State University - Cascades																																																																																																																																			
Summary: Dispose of landfill waste offsite.																																																																																																																																			
Project #/Task: 1290.01.04-9																																																																																																																																			
Prepared By: Brooke Harmon, PE																																																																																																																																			
Checked By: Jennifer King, PE																																																																																																																																			
Date: 10/23/2018																																																																																																																																			
Revision #: 1																																																																																																																																			
<table><tr><th>Line Item</th><th>Units</th><th>Unit Cost</th><th>No. of Units</th><th>Cost</th><th>Total Cost</th></tr><tr><td colspan="6">Construction Cost</td></tr><tr><td>Mobilization</td><td>LS</td><td>\$1,068,000</td><td>1</td><td>\$1,068,000</td><td></td></tr><tr><td>Construction Surveying</td><td>LS</td><td>\$15,000</td><td>1</td><td>\$15,000</td><td></td></tr><tr><td>Excavation of Waste</td><td>CY</td><td>\$2</td><td>2,238,000</td><td>\$4,476,000</td><td></td></tr><tr><td>Excavation and Processing of Pyrolysis Waste</td><td>CY</td><td>\$15</td><td>190,000</td><td>\$2,850,000</td><td></td></tr><tr><td>Removal and Stockpile of Cover Soil</td><td>CY</td><td>\$4</td><td>528,000</td><td>\$2,112,000</td><td></td></tr><tr><td>Hauling & Disposal of Waste</td><td>TON</td><td>\$50</td><td>3,885,000</td><td>\$194,250,000</td><td></td></tr><tr><td>Tire Collection and Disposal</td><td>TON</td><td>\$177</td><td>3,400</td><td>\$601,800</td><td></td></tr><tr><td>Dust Control</td><td>LS</td><td>\$500,000</td><td>1</td><td>\$500,000</td><td></td></tr><tr><td>Shoring</td><td>SF</td><td>\$50</td><td>12,500</td><td>\$625,000</td><td></td></tr><tr><td>Temperature Monitoring/Fire Suppression</td><td>LS</td><td>\$100,000</td><td>1</td><td>\$100,000</td><td></td></tr><tr><td>Subtotal</td><td></td><td></td><td></td><td>\$206,597,800</td><td></td></tr><tr><td>Contingency</td><td></td><td></td><td>20%</td><td>\$41,319,560</td><td></td></tr><tr><td colspan="6">Professional Services</td></tr><tr><td>Design/Permitting</td><td>LS</td><td>\$800,000</td><td>1</td><td>\$800,000</td><td></td></tr><tr><td>Procurement/Contracting</td><td>LS</td><td>\$75,000</td><td>1</td><td>\$75,000</td><td></td></tr><tr><td>Construction Oversight</td><td>LS</td><td>\$300,000</td><td>1</td><td>\$300,000</td><td></td></tr><tr><td>Completion Report/As-Built</td><td>LS</td><td>\$50,000</td><td>1</td><td>\$50,000</td><td></td></tr><tr><td colspan="5">ALTERNATIVE TOTAL (Rounded to nearest \$1000)</td><td>\$249,142,000</td></tr><tr><td colspan="6">NOTES: CY = cubic yard LS = lump sum SF = square feet</td></tr></table>						Line Item	Units	Unit Cost	No. of Units	Cost	Total Cost	Construction Cost						Mobilization	LS	\$1,068,000	1	\$1,068,000		Construction Surveying	LS	\$15,000	1	\$15,000		Excavation of Waste	CY	\$2	2,238,000	\$4,476,000		Excavation and Processing of Pyrolysis Waste	CY	\$15	190,000	\$2,850,000		Removal and Stockpile of Cover Soil	CY	\$4	528,000	\$2,112,000		Hauling & Disposal of Waste	TON	\$50	3,885,000	\$194,250,000		Tire Collection and Disposal	TON	\$177	3,400	\$601,800		Dust Control	LS	\$500,000	1	\$500,000		Shoring	SF	\$50	12,500	\$625,000		Temperature Monitoring/Fire Suppression	LS	\$100,000	1	\$100,000		Subtotal				\$206,597,800		Contingency			20%	\$41,319,560		Professional Services						Design/Permitting	LS	\$800,000	1	\$800,000		Procurement/Contracting	LS	\$75,000	1	\$75,000		Construction Oversight	LS	\$300,000	1	\$300,000		Completion Report/As-Built	LS	\$50,000	1	\$50,000		ALTERNATIVE TOTAL (Rounded to nearest \$1000)					\$249,142,000	NOTES: CY = cubic yard LS = lump sum SF = square feet					
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FIGURES



Path: X:\1290.01 Oregon State University Cascades Campus\Projects\Fig1_Site_Location.mxd
Print Date: 12/17/2018
Approved By: bharmon
Produced By: efrank
Project: 1290.01



Oregon State University Cascades Campus, Bend, Oregon
Source: US Geological Survey (1986) 7.5-minute topographic
quadangle: Bend, Section 6, Township 18 South, Range 12 East

Legend

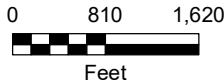
-  Taxlots  Site Boundary (approximate)

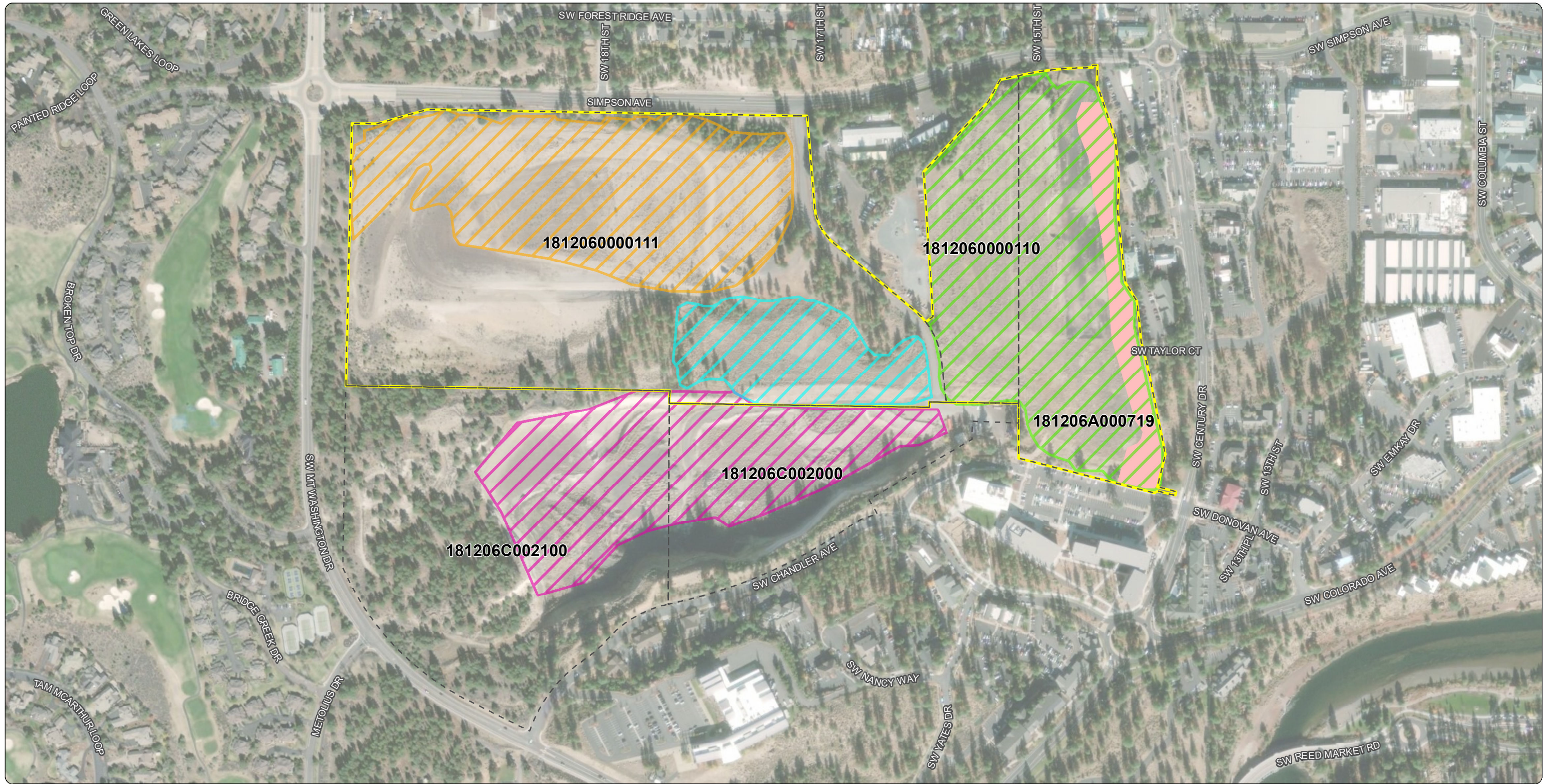
Figure 1
Site Location

Oregon State University Cascades Campus
Bend, Oregon



This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.





Oregon State University Cascades Campus, Bend, Oregon
Source: US Geological Survey (1986) 7.5-minute topographic quadrangle: Bend Section 6, Township 18 South, Range 12 East

Note:
The tax lot boundaries as shown are based on data obtained from Deschutes County and are current as of 6/21/2017. The property boundary is based on survey data provided by Sun Country Engineering & Surveying on 04/06/2018.



This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.

Landfill Area

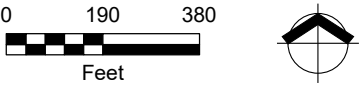
- Area 1
- Area 2
- Area 3
- Property_Boundary
- Pumice Mine

Legend

- Fence (approximate)
- Potential Pyrolysis Area
- Site Boundary (approximate)
- Taxlot

DRAFT

Figure 2
Site Overview/ Site Access
Oregon State University Cascades Campus
Bend, Oregon



Application for Federal Assistance SF-424

* 1. Type of Submission:

- ☐ Preapplication
☒ Application
☐ Changed/Corrected Application

* 2. Type of Application:

- ☒ New
☐ Continuation
☐ Revision

* If Revision, select appropriate letter(s):

* Other (Specify):

* 3. Date Received:

01/31/2019

4. Applicant Identifier:

5a. Federal Entity Identifier:

5b. Federal Award Identifier:

State Use Only:

6. Date Received by State:

7. State Application Identifier:

8. APPLICANT INFORMATION:

* a. Legal Name:

Oregon State University

* b. Employer/Taxpayer Identification Number (EIN/TIN):

611730890

* c. Organizational DUNS:

053599908

d. Address:

* Street1:

B308 Kerr Admin Bldg - OSU

Street2:

* City:

Corvallis

County/Parish:

Benton

* State:

OR: Oregon

Province:

* Country:

USA: UNITED STATES

* Zip / Postal Code:

97331-2140

e. Organizational Unit:

Department Name:

RIP - VP for Research

Division Name:

Vice President for Research

f. Name and contact information of person to be contacted on matters involving this application:

Prefix:

* First Name:

Patricia

Middle Name:

A

* Last Name:

Hawk

Suffix:

Title:

Assist VP-Spon Res Award Admin

Organizational Affiliation:

Oregon State University

* Telephone Number:

5417374933

Fax Number:

5417373093

* Email:

sponsored.programs@oregonstate.edu

Application for Federal Assistance SF-424

* 9. Type of Applicant 1: Select Applicant Type:

H: Public/State Controlled Institution of Higher Education

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

* Other (specify):

* 10. Name of Federal Agency:

Environmental Protection Agency

11. Catalog of Federal Domestic Assistance Number:

66.818

CFDA Title:

Brownfields Assessment and Cleanup Cooperative Agreements

* 12. Funding Opportunity Number:

EPA-OLEM-OBLR-18-07

* Title:

FY19 GUIDELINES FOR BROWNFIELDS CLEANUP GRANTS

13. Competition Identification Number:

Title:

14. Areas Affected by Project (Cities, Counties, States, etc.):

Add Attachment

Delete Attachment

View Attachment

* 15. Descriptive Title of Applicant's Project:

EPA Brownfields Cleanup Grant FY19

Attach supporting documents as specified in agency instructions.

Add Attachments

Delete Attachments

View Attachments

Application for Federal Assistance SF-424**16. Congressional Districts Of:*** a. Applicant * b. Program/Project

Attach an additional list of Program/Project Congressional Districts if needed.

17. Proposed Project:* a. Start Date: * b. End Date: **18. Estimated Funding (\$):**

* a. Federal	<input type="text" value="500,000.00"/>
* b. Applicant	<input type="text" value="137,350.00"/>
* c. State	<input type="text" value="0.00"/>
* d. Local	<input type="text" value="0.00"/>
* e. Other	<input type="text" value="0.00"/>
* f. Program Income	<input type="text" value="0.00"/>
* g. TOTAL	<input type="text" value="637,350.00"/>

*** 19. Is Application Subject to Review By State Under Executive Order 12372 Process?**

- ☐ a. This application was made available to the State under the Executive Order 12372 Process for review on .
- ☐ b. Program is subject to E.O. 12372 but has not been selected by the State for review.
- ☒ c. Program is not covered by E.O. 12372.

*** 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes," provide explanation in attachment.)**☐ Yes ☒ No

If "Yes", provide explanation and attach

21. *By signing this application, I certify (1) to the statements contained in the list of certifications and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 218, Section 1001)**

☒ ** I AGREE

** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

Authorized Representative:

Prefix: * First Name:

Middle Name:

* Last Name:

Suffix:

* Title: * Telephone Number: Fax Number: * Email: * Signature of Authorized Representative: * Date Signed: